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# The North Pickering Project

**Income and Occupation Profiles  
for North Pickering**  
[Background Paper No. 15]

April, 1975



Ministry of  
Housing

Ontario



This report was prepared as background material in the Planning of The North Pickering Planning Area and does not necessarily constitute a recommendation of the North Pickering Project nor approval of the Government of Ontario.




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FOR  
NORTH PICKERING

# INTRODUCTION

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[illegible]

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## INTRODUCTION

The purpose of this report is to derive working estimates of family and household income and occupational structure for the resident population of North Pickering. There are a number of factors which may make this intelligence of importance to the New Community development process.

1. An important part of the proposed implementation strategy to build a 'live/work' community at North Pickering is the provision of housing, timed and tailored to meet specific labour force needs. As the particular mix of residential requirements will vary with the changing income make-up and perhaps also with the changing occupation make-up of various industries, some prior knowledge of the income and occupational structure of a range of "probable" and "ideal" industries for the New Community should provide useful guidance in this area.
2. In the area of social development, the occupational/income profile associated with industries which might locate in North Pickering could provide useful input for the design of recreational, educational, health, welfare, cultural and other social facilities and services.
3. In the overall area of community design, the housing, income and occupational profiles to be inferred from the "probable" and "ideal" employment profiles may be important inputs for designing residential and employment areas, providing retail and commercial facilities, designing the community's central area and sub-centres and related issues.





(ii)

Approximately 80% of all households are family-households and these accommodate approximately 90% of the population. Most house purchases are made by families using family income and most income support occurs within families. Therefore, considerable attention has been paid to the translation of probable employment income for North Pickering into probable family income for the New Community. However, the whole population must be housed, whether in owned or rental accommodation and by definition every person, unless he is a permanent resident of institution, lives in a household. Therefore a probable household income profile for the New Community has also been developed.

#### APPROACH

Previous studies in the area of economic planning for North Pickering have suggested a "market" and an "ideal" employment profile for the New Community.\* In order to translate these profiles into family and household income possibilities, the following process was adopted.

1. An examination of current (1971) income/employment relationships was undertaken for relevant areas.
2. The empirical income/employment ranges observed were inflated to a 1974 dollar estimate and applied to the anticipated employment profile for North Pickering under "market" and "ideal" conditions.

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\* See Urban Employment for North Pickering, North Pickering Project, 1975.



(iii)

3. Research into the relationship between individual employment income and family income was undertaken, and a working transformation process derived.
4. The empirical patterns of income-earners per household were examined for the greater Metropolitan Toronto area. Trends in these patterns were assessed.
5. These relationships were applied to the employment prospects in North Pickering under an urban activity rate of 42% (31,500 jobs) and a family-household profile developed.
6. The distribution of family and household income in North Pickering for both the "market" and "ideal" scenarios were then estimated.
7. From the research and analysis various income/occupation and employment/occupation patterns were observed and estimates for North Pickering developed.





PART I

EMPLOYMENT INCOME OF INDIVIDUALS BY ECONOMIC SECTORS





PART I  
EMPLOYMENT INCOME OF INDIVIDUALS  
BY ECONOMIC SECTORS

Four main economic sectors for North Pickering have been identified as manufacturing, construction, trade and services. Assuming an urban place activity rate<sup>1</sup> of 42%, these sectors are expected to have the following relative size, assuming a "market" scenario or employment base which market forces are likely to induce in the New Community; and assuming an "ideal" scenario or employment base which would provide a wide range of office, technical, professional and industrial jobs.

TABLE I-1  
NORTH PICKERING'S SECTORAL SPLIT<sup>2</sup>

SCENARIO Sector	"MARKET"		"IDEAL"	
	Employment Rate	Sectoral Split= % of Employment	Employment Rate	Sectoral Split= % of Employment
Manufacturing	24	57.1	16	38.1
Construction	2.5	6	2	4.8
Trade	6.5	15.5	7	16.7
Services	9	21.4	17	40.4
TOTALS	42	100	42	100

A detailed sectoral split for selected places in the Central Ontario Lakeshore Area (COLA) is shown in Table I-2.

1. Here expressed as the number of jobs in a place as a percentage of the resident population.
2. Urban Employment for North Pickering, North Pickering Project, 1975.



TABLE I - 2

S.I.C. DIVISIONS		DISTRIBUTION OF EMPLOYMENT BY S.I.C. DIVISIONS FOR SELECTED PLACES IN THE CENTRAL ONTARIO LAKESHORE AREA																									
		Metro	%	Etobicoke	%	Scarborough	%	York	%	East York	%	North York	%	Toronto	%	Ajax	%	Whitby	%	Oshawa	%	Brampton	%	Bramalea (Chinguacousy)	%	Mississauga	%
1.	Agriculture	1,165	0.1	140	0.1	285	0.3	45	0.1	10	0.1	255	0.1	410	0.1	10	0.1	330	3.7	140	0.3	315	1.7	485	4.5	465	0.8
5.	Manufacturing	236,335	25.8	36,030	37.9	28,505	32.1	12,445	37.2	8,370	44.2	41,585	27.8	109,115	20.6	255	55.9	2,845	32.7	18,010	48.6	6,125	33.8	6,665	62.6	20,875	37.4
6.	Construction	55,285	6.0	4,890	5.1	6,070	6.8	4,200	12.5	1,150	6.0	13,255	8.8	24,870	4.7	195	3.3	405	4.6	1,570	4.2	1,520	8.4	550	5.1	3,190	5.7
7.	Transportation, Communications Other Utilities	72,995	7.9	6,455	6.8	5,145	5.8	1,420	4.2	450	2.2	6,415	4.2	52,870	10.0	160	2.7	305	3.5	2,080	5.6	1,030	5.6	335	3.1	7,535	13.5
8.	M.G. 1 - Wholesale Trade	55,400	6.0	9,755	10.2	5,395	6.0	3,075	9.2	1,480	7.8	12,035	8.0	23,545	4.4	85	1.4	140	1.6	795	2.1	835	4.6	600	5.6	3,935	7.0
	M.G. 2 - Retail	110,880	12.1	11,730	12.3	13,575	15.3	4,280	12.8	1,490	7.8	19,290	12.9	60,265	11.4	725	12.4	1,160	13.3	4,300	11.6	2,520	13.9	450	4.2	5,025	9.0
9.	Finance, Insurance & Real Estate	76,025	8.3	2,890	3.0	3,610	4.8	1,010	3.0	750	3.9	8,405	5.6	59,275	11.2	160	2.7	235	2.7	1,165	3.1	785	4.3	145	1.3	1,270	2.2
10.	Community, Business & Personal Services	242,070	26.4	8,920	19.9	22,265	25.1	5,880	17.6	4,075	21.5	38,050	25.4	152,385	28.8	1,060	18.2	2,560	29.4	7,205	19.4	4,020	22.2	995	9.3	10,630	19.0
	M.G. 5 Services to Business Management	(44,535)	(4.8)	(2,555)	(2.6)	(1,870)	(2.1)	(550)	(1.6)	(460)	(2.4)	(6,175)	(4.1)	(32,840)	(6.2)	(35)	(0.6)	(205)	(2.3)	(480)	(1.2)	(45)	(0.2)	(135)	(1.2)	(1,830)	(3.2)
11.	Public Administration & Defense	56,020	6.1	3,280	3.4	2,890	3.2	705	2.1	935	4.9	8,625	5.7	39,490	7.4	130	2.2	110	1.2	1,465	3.9	780	4.3	310	2.9	2,165	3.8
TOTAL ALL INDUSTRIES		915,775		94,875		88,550		33,375		18,895		149,310		528,205		5,815		8,770		37,025		18,075		10,645		55,790	

NOTE: Percentages do not add to 100% because not all  
Divisions are included e.g. Forestry, Mining, Unspecified.

SOURCE: 1971 Census





As a basis for calculating the distribution of employment income within the four sectors for the New Community, 1971 Census information was used.<sup>3</sup> First, the income structures by industry were constructed from the raw data for the Province of Ontario, Ontario County, Peel County and Metropolitan Toronto, Tables I-3, I-4, I-5, and I-6. As can be seen from these Tables, the sectoral split provided is somewhat more detailed than the four main sectors used for North Pickering, and therefore the following adjustments were made:

<u>North Pickering</u>	<u>Sectoral Structure of the "Income Structure" Tables</u>
i Manufacturing	Manufacturing + 1/2 of "Unspecified"
ii Construction (=5/8 of W + C)*	Construction
iii Trade (=Retail + 3/8 of W+C)	Trade
iv Service	Transportation, Communications and Other Utilities, Finance Insurance, Real Estate, Services, Public Administration, + 1/2 of "Unspecified".

Note: W+C = Wholesale and Construction

\* This break-out approximates Ajax, Oshawa, Whitby, York and Brampton from Table I-2.

In preparing this approximation, two assumptions were made:

- i) that the "Primary Industries" - i.e. Agriculture, Fishing, Trapping, and Mining were relatively insignificant in COLA, approximately 4% of employment and could be omitted;
- ii) that "Unspecified" could be split 50-50 to augment the "manufacturing" and "service" sectors in the postulated

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3 Table PTAB29, Statistics Canada, for Province of Ontario, Ontario County, Peel County and Metro Toronto.





TABLE I - 3

## PROVINCE OF ONTARIO: INCOME STRUCTURE BY SIC DIVISIONS

AS A PROPORTION OF TOTAL EMPLOYMENT INCOME - 1971

	SIC 5	SIC 6	SIC 7	SIC 8	SIC 2	SIC 9	SIC 10	SIC 11	SIC 1	SIC 4	SIC 12	
	Manufac- turing	Construction	Transporta- tion	Trade	Forestry	Finance Insurance Real Estate	Services	Public Administration	Agriculture	Mining	Unspe- cified	Total for Rows
Employed Total \$ ,000 's	875,855	217,785	237,965	545,040	9,500	168,840	885,560	263,240	150,985	43,355	275,120	5, 674, 935
< 3	4.6%	1.3%	1.2%	6.1%	0.1%	1.1%	9.7%	1.6%	2.0%	0.2%	2.6%	30.5%
3-6	6.7	1.4	1.4	3.9	0.1	1.8	6.6	1.5	0.7	0.2	1.7	26.0%
6-10	9.0	1.9	2.7	3.2	0.1	1.0	4.7	2.6	0.3	0.5	1.4	27.4%
10-15	2.7	1.0	0.9	0.1	-	0.4	1.7	1.1	0.1	0.2	0.4	6.6%
>15	0.8	0.3	0.2	0.5	-	0.3	1.2	0.4	0.1	0.1	0.2	4.2%
No income	0.1	-	-	0.2	-	-	0.2	-	0.9	-	1.1	2.5%
Totals for columns	23.8%	5.9%	6.5%	14.8%	0.3%	4.6%	24.1%	7.2%	4.1%	1.2%	7.5%	100%

Source: 1971 Census.

Notes: - Denotes values less than 0.1%.

Totals may not sum due to rounding.



TABLE 1- 4

## ONTARIO COUNTY: INCOME STRUCTURE BY SIC DIVISION

AS A PROPORTION OF TOTAL EMPLOYMENT INCOME - 1971

	SIC 5	SIC 6	SIC 7	SIC 8	SIC 9	SIC 10	SIC 11	SIC 1,2,3,4		SIC 12	Total for Rows
	Manufacturing	Construction	Transportation	Trade	Finance, Insurance and Real Estate	Services	Public Administration	Primary		Unspe- cified	
								Agriculture	Other		
Employed Total \$ ,000's	29,010	4,775	5,360	12,575	3,305	18,665	4,050	3,370	235	5,325	86,665
< 3	5.0	1.3	0.7	6.5	1.0	9.0	1.2	1.8	-	2.1	28.6%
3-6	10.8	1.1	1.3	3.4	1.3	5.4	0.8	0.7	-	1.2	26.0%
6-10	12.2	1.6	2.5	3.2	0.9	4.5	1.8	0.3	-	1.2	28.2%
10-15	4.5	1.2	1.2	1.0	0.4	1.6	0.8	0.1	-	0.4	11.2%
> 15	0.9	0.3	0.3	0.3	0.1	0.9	0.1	0.1	-	0.1	3.1%
No income	0.1	-	-	0.2	-	0.1	-	0.9	-	1.1	2.4%
Totals for columns	33.5%	5.5%	6.2%	14.5%	3.8%	21.5%	4.7%	3.9%	0.3%	6.1%	100%

Source: 1971 Census.

Notes: - Denotes values less than 0.1%.  
 Column "Other" denotes Forestry, Fishing and Mining.  
 Totals may not sum due to rounding.





TABLE I - 5

PEEL COUNTY: INCOME STRUCTURE BY SIC DIVISION  
AS A PROPORTION OF TOTAL EMPLOYMENT INCOME - 1971

	SIC 5	SIC 6	SIC 7	SIC 8	SIC 9	SIC 10	SIC 11	SIC 1,2,3,4		SIC 12	
	Manufacturing	Construction	Transportation	Trade	Finance, Insurance and Real Estate	Services	Public Administration	Primary		Unspe- cified	Total for Rows
								Agriculture	Other		
Employed Total \$ ,000's	38,720	5,985	9,875	21,170	6,175	26,645	5,605	2,380	500	8,325	124,385
< 3	5.1	0.9	1.2	6.1	1.1	7.8	1.0	0.8	-	1.9	25.9%
3-6	7.6	0.9	1.2	3.9	1.6	4.7	0.7	0.4	0.1	1.4	22.5%
6-10	11.6	1.5	3.2	4.0	1.1	4.3	1.6	0.2	0.1	1.7	29.3%
10-15	4.9	1.1	1.7	1.9	0.7	2.1	0.9	0.1	0.1	0.5	14.0%
> 15	1.8	0.4	0.6	0.9	0.5	1.6	0.3	0.1	0.1	0.2	6.5%
No income	0.1	-	-	0.1	-	0.2	-	0.3	-	1.0	1.6%
Totals for columns	31.1%	4.8%	7.9%	17.0%	5.0%	20.6%	4.5%	1.9%	0.4%	6.7%	99.8%

Source: 1971 Census.

Notes: - Denotes values less than 0.1%.  
Column "Other" denotes Forestry, Fishing and Mining.  
Totals may not sum due to rounding.



TABLE I - 6

## METROPOLITAN TORONTO: INCOME STRUCTURE BY SIC DIVISION

AS A PROPORTION OF TOTAL EMPLOYMENT INCOME - 1971

	SIC 5	SIC 6	SIC 7	SIC 8	SIC 9	SIC 10	SIC 11	SIC 1,2,3,4		SIC 12	Total for Rows
	Manufacturing	Construction	Transportation	Trade	Finance, Insurance and Real Estate	Services	Public Administration	Primary		Unspe- cified	
								Agriculture	Other		
Employed Total \$,000's	263,010	65,965	80,185	184,250	78,295	276,605	58,540	2,300	2,825	82,090	1,094, 385
< 3	% 4.9	% 0.9	% 1.3	% 6.0	% 1.6	% 8.6	% 1.2	% 0.1	% 0.1	% 2.3	27.0%
3- 6	7.5	1.4	1.6	4.9	2.9	7.4	1.3	-	0.1	2.1	29.0%
6-10	8.2	2.2	3.2	3.9	1.5	5.3	1.9	-	0.1	1.7	28.0%
10-15	2.5	1.2	1.0	1.2	0.6	2.0	0.8	-	-	0.4	9.7%
> 15	1.0	0.3	0.3	0.7	0.5	1.6	0.2	-	-	0.2	4.8%
No income	0.1	-	-	0.2	-	0.2	-	-	-	0.9	1.4%
Totals for columns	24.0%	6.0%	7.3%	16.8%	7.2%	25.3%	5.3%	0.2%	0.3%	7.5%	100%

Source: 1971 Census.

Notes: - Denotes values less than 0.1%.

Column "Other" denotes Forestry, Fishing and Mining.

Totals may not sum due to rounding.



sectoral split for North Pickering.

For the calculation of the income distribution tables, only three of the four income structure tables were used, Ontario County, Peel County and Metropolitan Toronto, since income distribution for the Province as a whole was thought to be less indicative of the probable income structure for North Pickering. Ranges, based on high and low figures drawn from the three areas utilized, were used to indicate the relative size of each income class for each of the four main sectors postulated for North Pickering. The relative sectoral sizes for Ontario County, Peel County and Metropolitan Toronto were approximately 32% + 6% + 16% + 42%. Table I-7, "Income Ranges within Major Sectors" shows the relative sizes of income classes in these three areas, but using the four main sectors identified for North Pickering.

TABLE I-7    EMPLOYMENT INCOME RANGES IN PERCENTAGE TERMS  
WITHIN MAJOR SECTORS FOR ONTARIO AND PEEL COUNTIES  
AND METROPOLITAN TORONTO - 1971

\$ 000's	Range	Manufacturing %	Construction %	Trade %	Services %
< 3	L	17.7	16.1	37.3	27.2
	H	19.6	23.2	40.4	34.5
3 - 6	L	25.2	16.1	21.1	20.5
	H	36.6	25.0	30.4	31.8
6 - 10	L	27.3	26.8	19.9	19.0
	H	40.4	39.3	24.8	36.6
10 - 15	L	8.4	19.6	6.2	9.6
	H	16.1	21.4	11.8	13.9
> 15	L	2.8	5.4	1.9	3.4
	H	5.9	7.1	5.6	7.5
TOTAL		100	100	100	100

Source: 1971 Census





Next, this table of income ranges within sectors was used to construct Table I-8, "Employment Income in Percentage Terms by Major Sectors - 'Market' Scenario". This step consisted of applying the postulated employment rate weights for North Pickering of 24 + 2.5 + 6.5 + 9 (or 57.1% + 6% + 15.5% + 21.4% in terms of employment proportions) to Table I-7, thus attaining the total employment income distribution for the on-site employed labour force by income class, in each industrial sector for the "Market" scenario.

TABLE I-8      EMPLOYMENT INCOME IN PERCENTAGE TERMS BY MAJOR  
SECTORS - "MARKET" SCENARIO

Income in \$ ,000's		Range	Manufacturing %	Construction %	Trade %	Services %	Employment Range by Income Class %	Average %
1974	1971							
< 4	< 3	L	10	.8	6.0	6.0	23 - 26	24.5
		H	11.2	1.2	6.4	7.6		
4-8	3-6	L	14.4	.8	3.2	4.4	23 - 34	27.5
		H	20.8	1.6	4.8	6.8		
8-14	6-12	L	15.6	1.6	3.2	4.0	24 - 38	31.0
		H	23.2	2.4	4.0	8.0		
14-20	10-15	L	4.0	1.2	.8	2.0	8 - 15	11.5
		H	8.0	1.2	2.0	4.0		
> 20	> 15	L	1.6	.4	.4	.8	3 - 6	4.5
		H	3.2	.4	.8	1.6		
Scenario Weights				57.1	6.0	15.5	21.4	100



Analogously, North Pickering's "Ideal" Scenario weights of 16 + 2 + 7 + 17 (or 38.1% + 4.8% + 16.7% + 40.4% in terms of employment) were applied to Table I-7 resulting in Table I-9.

TABLE I-9      EMPLOYMENT INCOME IN PERCENTAGE TERMS  
BY MAJOR SECTORS - "IDEAL" SCENARIO

Income in \$,000's		Range	Manufacturing %	Construction %	Trade %	Services %	Employment Range by Income Class %	Average %
1974	1971							
< 4	< 3	L	6.7	0.8	6.2	11.0	25 - 29	27.0
		H	7.5	1.1	6.7	13.9		
4-8	3-6	L	9.6	0.8	3.5	8.3	22 - 33	27.0
		H	13.9	1.2	5.1	12.8		
8-14	6-10	L	10.4	1.3	3.3	7.7	23 - 36	28.5
		H	15.4	1.9	4.1	14.8		
14-20	10-15	L	3.2	0.9	1.0	3.9	9 - 15	12.0
		H	6.1	1.0	2.0	5.6		
> 20	> 15	L	1.1	0.3	0.3	1.4	3 - 6	4.5
		H	2.2	0.3	0.9	3.0		
Column Totals		L	31.0	4.1	14.3	32.3		
		H	45.1	5.5	18.8	50.1		
Scenario Weights				38.1	4.8	16.7	40.4	100





It should be noted here that although the calculated distribution of income classes is believed to be reasonably accurate, the actual income in dollars might be somewhat different. This discrepancy stems from the fact that the 1971 Census data used for this study reflects the incomes prevalent in 1970, while in the intervening time (1970-74) Canada has had an inflation rate of some 10% annually. This problem is dealt with in Appendix I. The raised income classes (i.e. 1974 levels) are introduced in Tables I-8 and I-9 and used throughout this paper.

Tables I-8 and I-9 represent the anticipated employment income picture under the two postulated scenarios. They differ in the weights which are assigned to each sector (See last line of Tables). Reading the table across gives the % distribution of employment by sector for an income class. Ranges are used to indicate possible variations, as indicated for COLA by Table I-7. Reading the table from top to bottom gives the % distribution of employment by income for each of the sectors, again showing the possible ranges.

As can be seen from Tables I-8 and I-9, *the employment income distribution remains remarkably stable under both scenarios*. Calculated averages for the income classes from the two above mentioned tables are arranged below in order of magnitude:



- a) the largest concentration (28.5-31%) of income falls in the \$8,00-\$14,000 category
- b) this is followed by about 27% in the \$4-8,000 category
- c) next is 24.5-27% in the less than \$4,000 category
- d) about 12% falls in the \$14-20,000 category
- e) and about 5% in the over \$20,000 category.

For working purposes the two sets of average figures from Tables I-8 and I-9 were combined, slightly modified and are presented in column 2 of Table I-10. This table shows the anticipated employment income profile for North Pickering, as derived from the expected sectoral split. At the activity rate of 42% and a design population of 75,000 people, it looks as follows:

TABLE I-10      INDIVIDUAL EMPLOYMENT INCOME PROFILE  
FOR NORTH PICKERING

1974 Modified Income Class \$ ,000's	% of Total Employment	No. of Recipients	\$ Total <sup>1</sup> Income \$'s Millions	% of Total Income
< 4	27	8,505	17.010	6.1
4 - 8	27	8,505	51.050	18.2
8 - 14	29	9,135	100.485	35.9
14 - 20	12	3,780	64.260	22.9
> 20	5	1,575	47.250	16.9
Totals	100	31,500	280.055	100.0

1 Calculations taken at the mid-point of the income class, except for the "\$20,000 and over" class, where a substitute figure of \$30,000 was used



The above distribution of individual employment income is shown graphically in Figure 1.

The income ranges applied to the "market" and "ideal" employment scenarios produce income profiles for those people who may work in North Pickering. The degree to which the income profile so derived will reflect the actual income of the resident population depends upon,

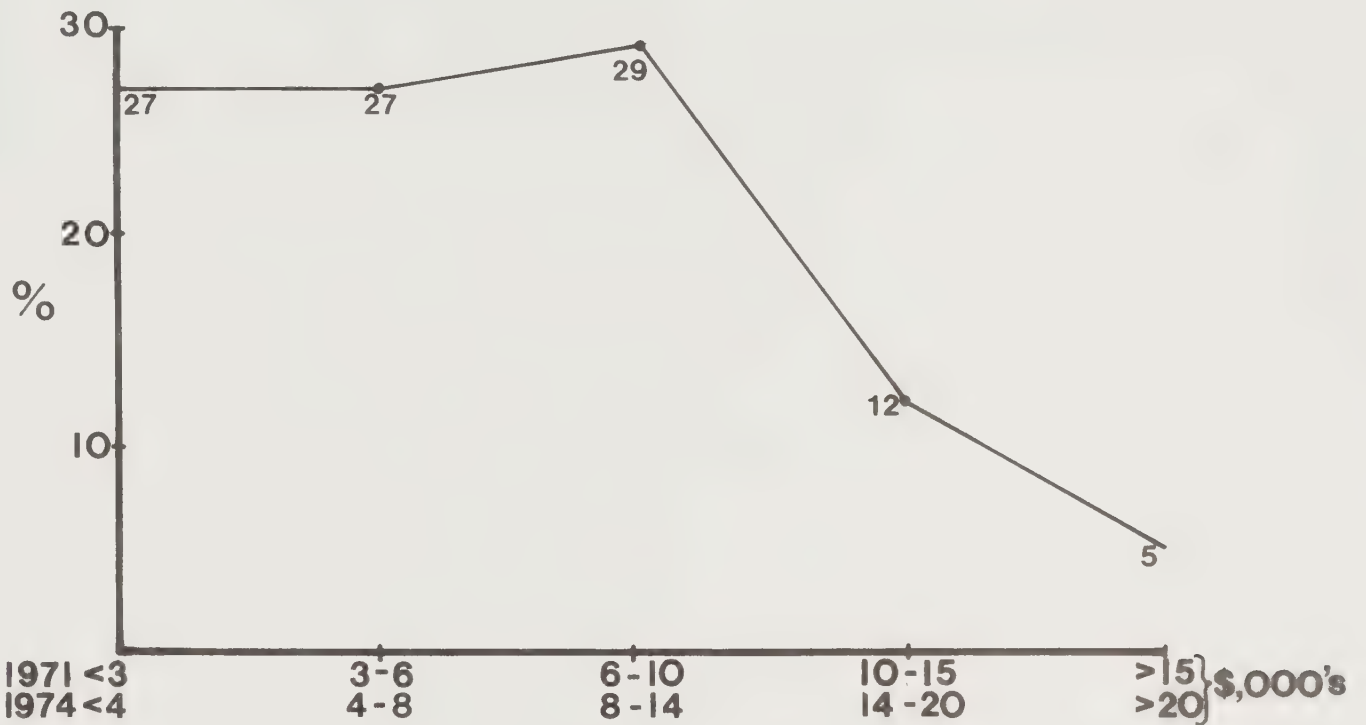
- (a) the extent to which the resident labour force takes the employment opportunities in the New Community, and
- (b) the extent to which the locally employed resident labour force disperses itself in accordance with the sectoral split of the scenarios, from which the income profile has been developed.

If a relatively small proportion of the local labour force take up local employment opportunities, then the North Pickering employment profile will not provide a very valid basis for estimating their income/occupational characteristics. On the other hand, if that proportion of the local labour force which does find jobs in the New Community, concentrate themselves in one or two sectors, the community's employment profile will not provide a reliable estimate of the income/occupational characteristics of the resident labour force and through these, of the community's families and households. Given the problem of estimating the total community income profile, from the on-site employment income profile, it is





**FIG. 1 INDIVIDUAL EMPLOYMENT INCOME PROFILE FOR NORTH PICKERING**



necessary to compare the one with the other to determine any unacceptable discrepancies. Figures 2 through 9 inclusive, display the income distribution of a range of contiguous municipalities in the greater metropolitan area for 1972. These are based on taxation returns. Table I-11 provides the data for these distributions.<sup>4</sup>

Although the 1971 Census data on individual income were available for the urban places in COLA, the taxation statistics

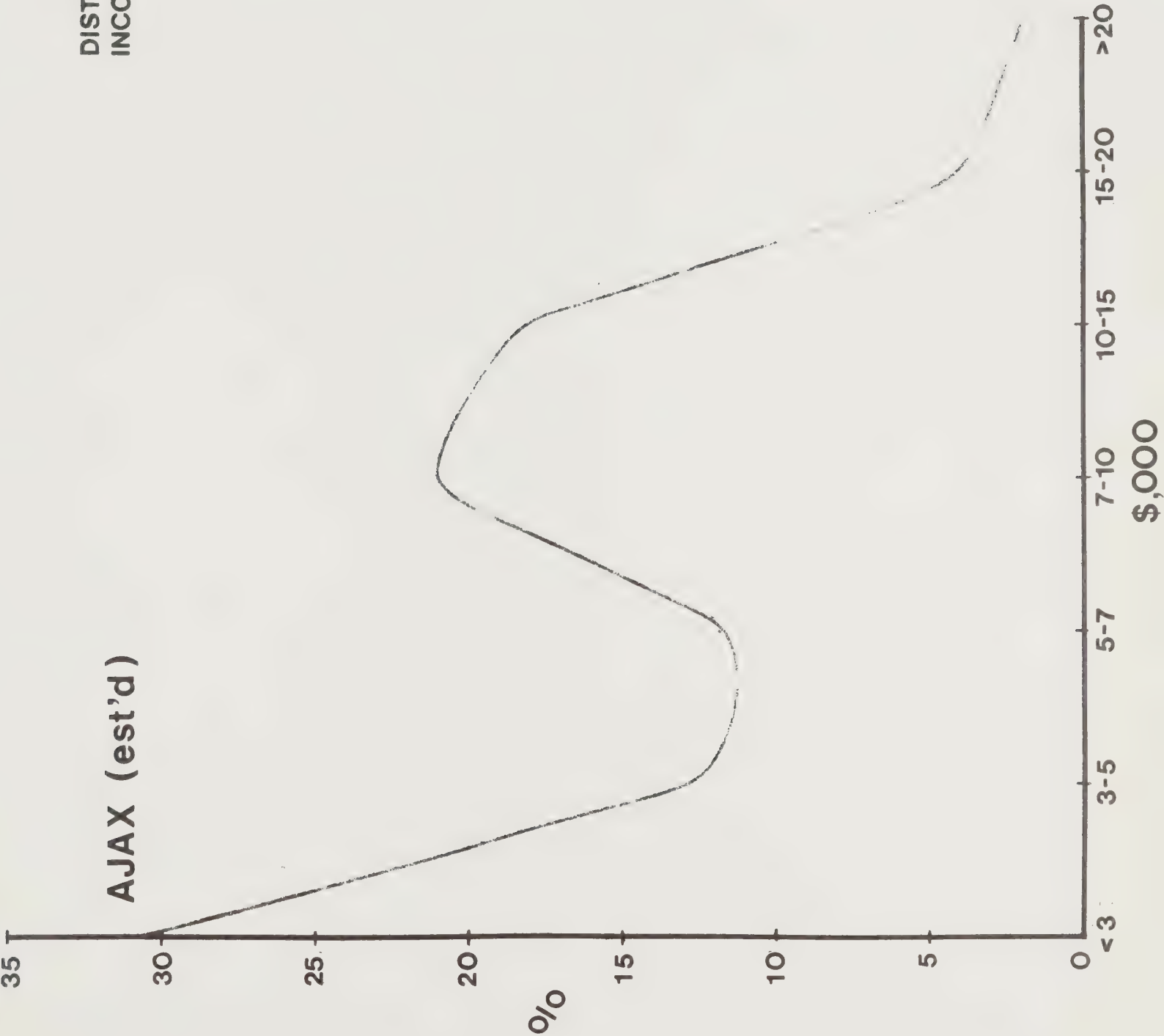
<sup>4</sup> Source: Taxation Statistics - 1972, Ottawa: Department of Revenue (1974) See Table I-6.



FIGURE 2

DISTRIBUTION OF ALL  
INCOME TAX RETURNS 1972

AJAX (est'd)



Source :  
TAXATION STATISTICS 1972  
REVENUE CANADA 1974  
(Table 6.)

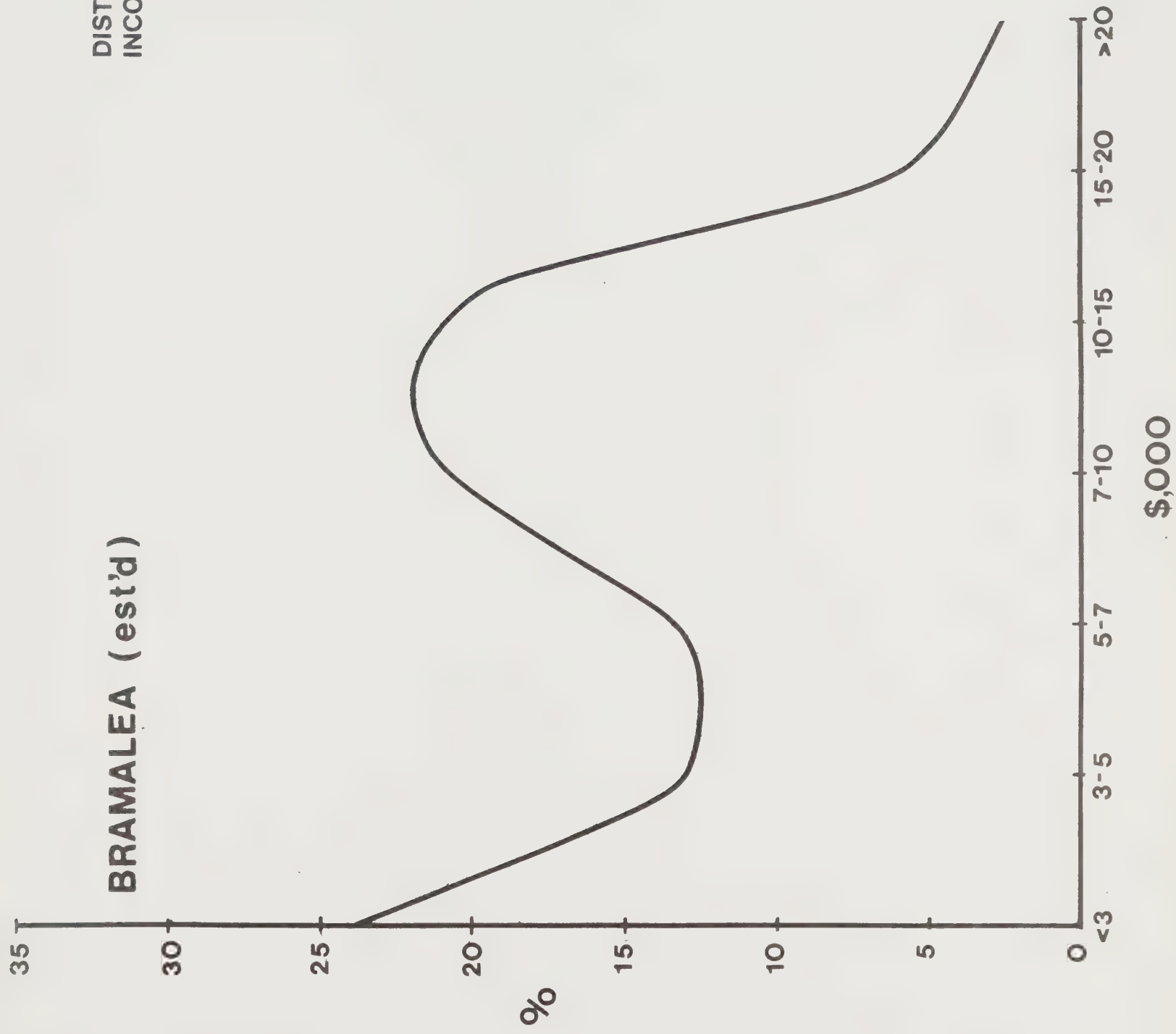




FIGURE 3

BRAMALEA (est'd)

DISTRIBUTION OF ALL  
INCOME TAX RETURNS 1972



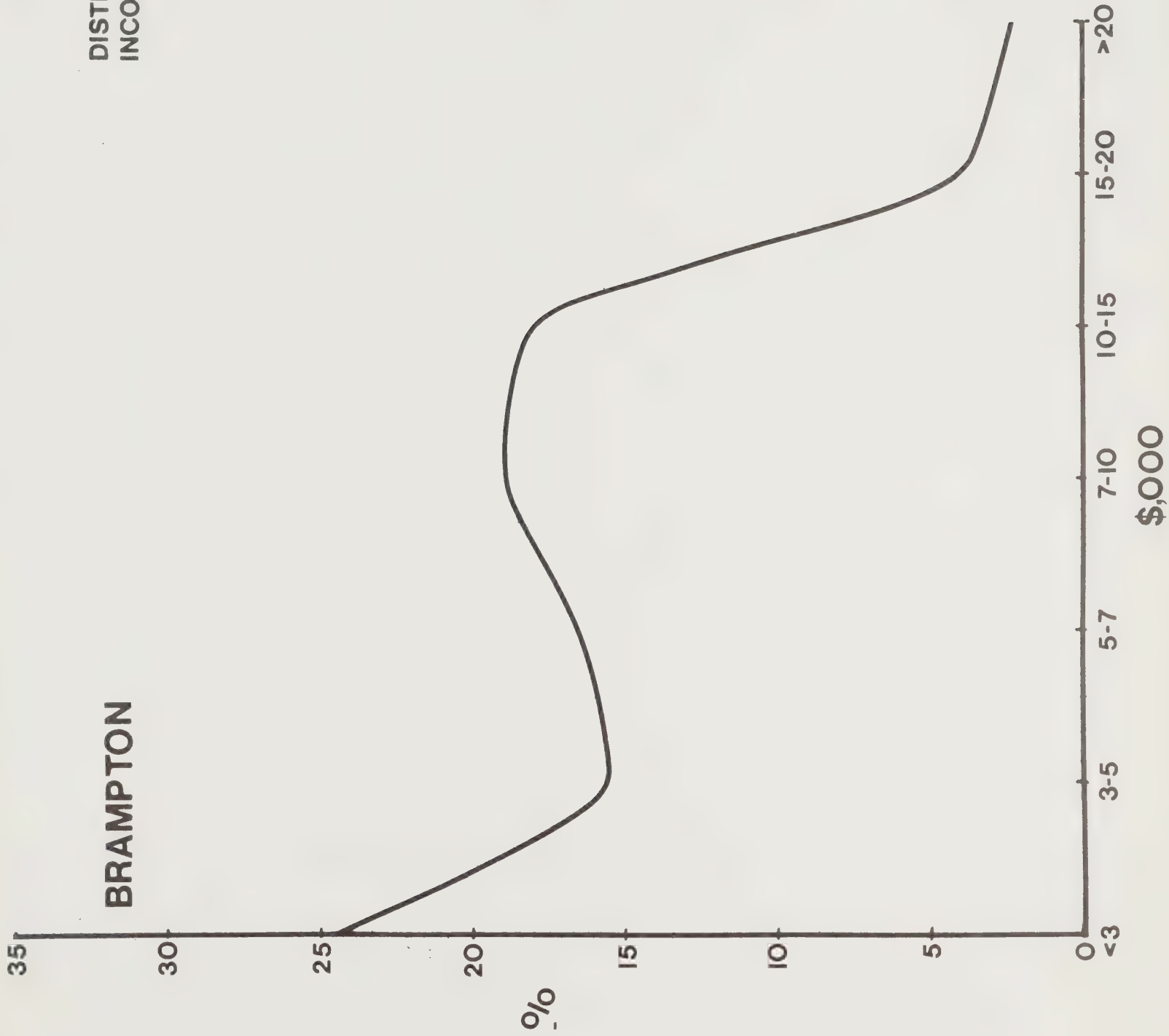
Source :  
TAXATION STATISTICS 1972  
REVENUE CANADA 1974  
(Table 6.)



FIGURE 4

BRAMPTON

DISTRIBUTION OF ALL  
INCOME TAX RETURNS 1972



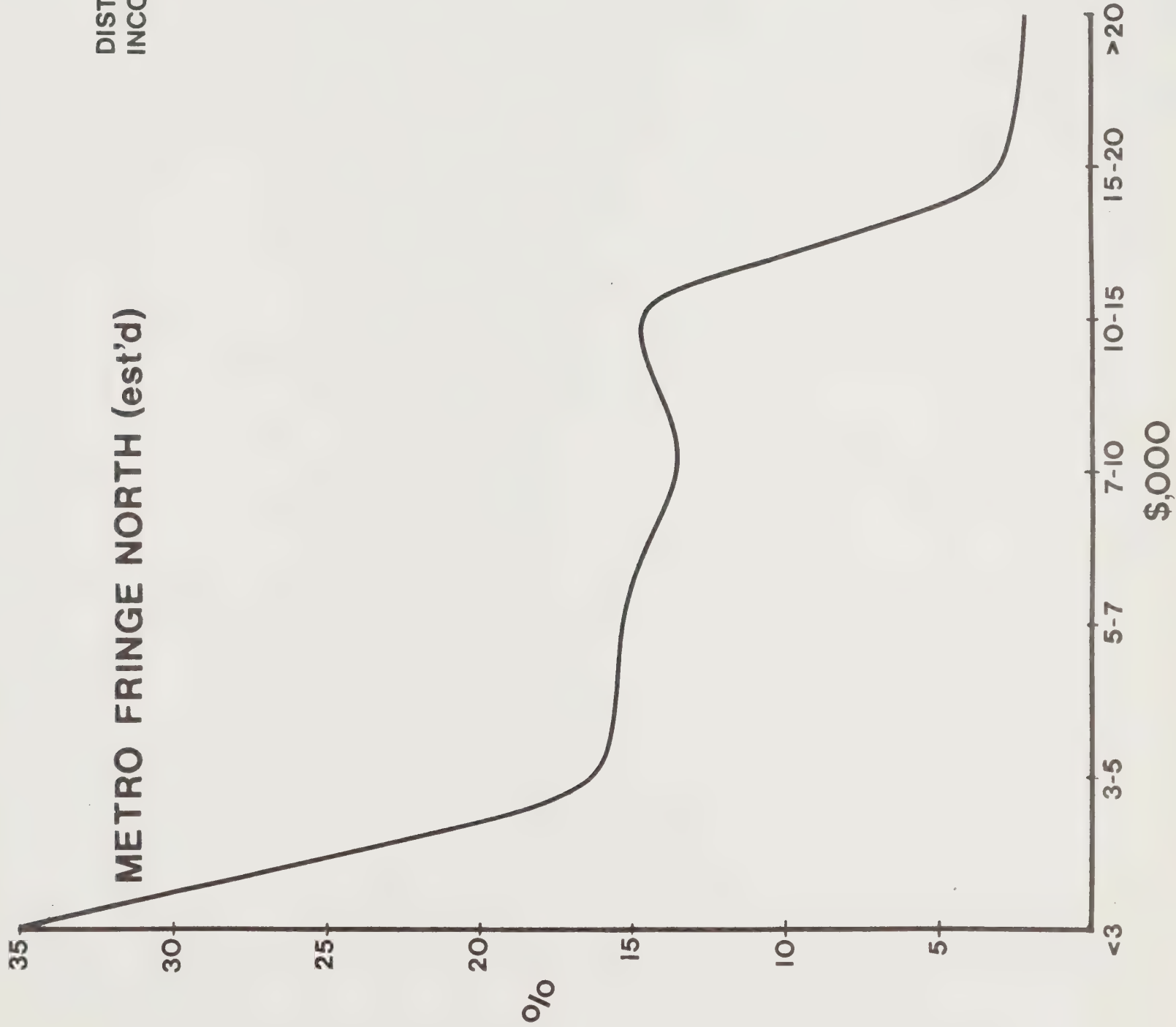
Source :  
TAXATION STATISTICS 1972  
REVENUE CANADA 1974  
(Table 6.)



FIGURE 5

METRO FRINGE NORTH (est'd)

DISTRIBUTION OF ALL  
INCOME TAX RETURNS 1972



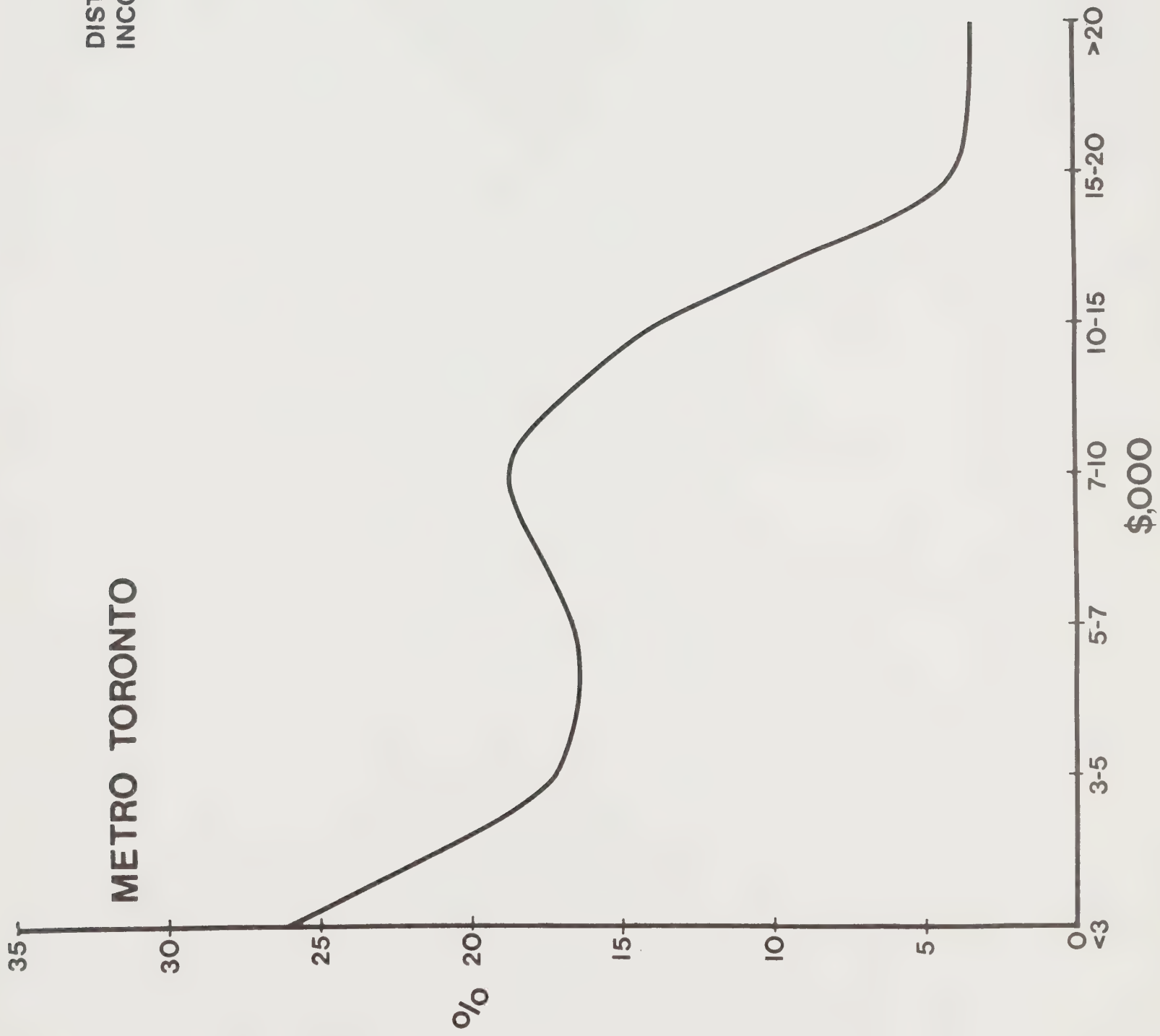
Source :  
TAXATION STATISTICS 1972  
REVENUE CANADA 1974  
(Table 6.)





FIGURE 6

METRO TORONTO  
DISTRIBUTION OF ALL  
INCOME TAX RETURNS 1972



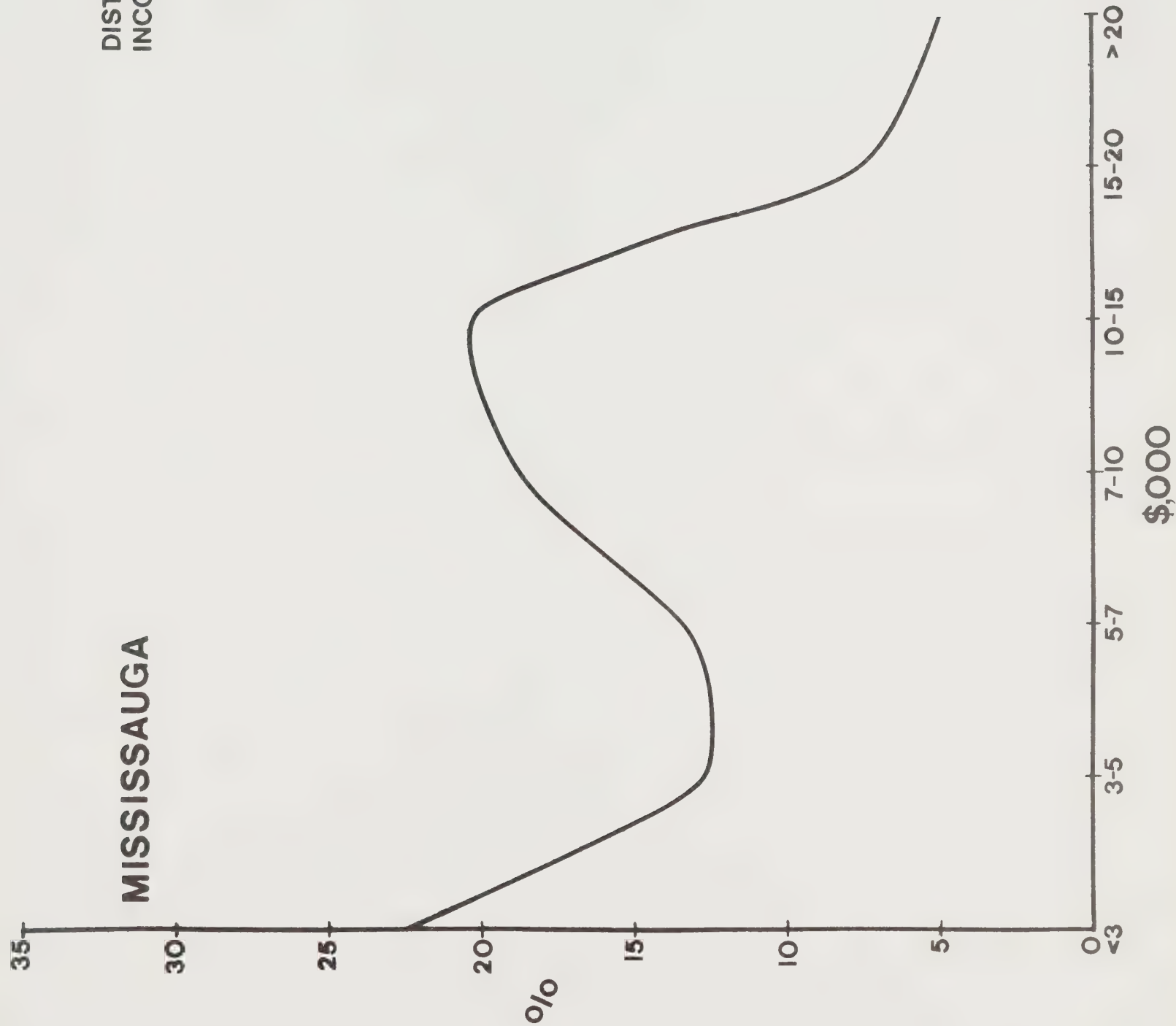
Source :  
TAXATION STATISTICS 1972  
REVENUE CANADA 1974  
(Table 6.)



FIGURE 7

DISTRIBUTION OF ALL  
INCOME TAX RETURNS 1972

MISSISSAUGA



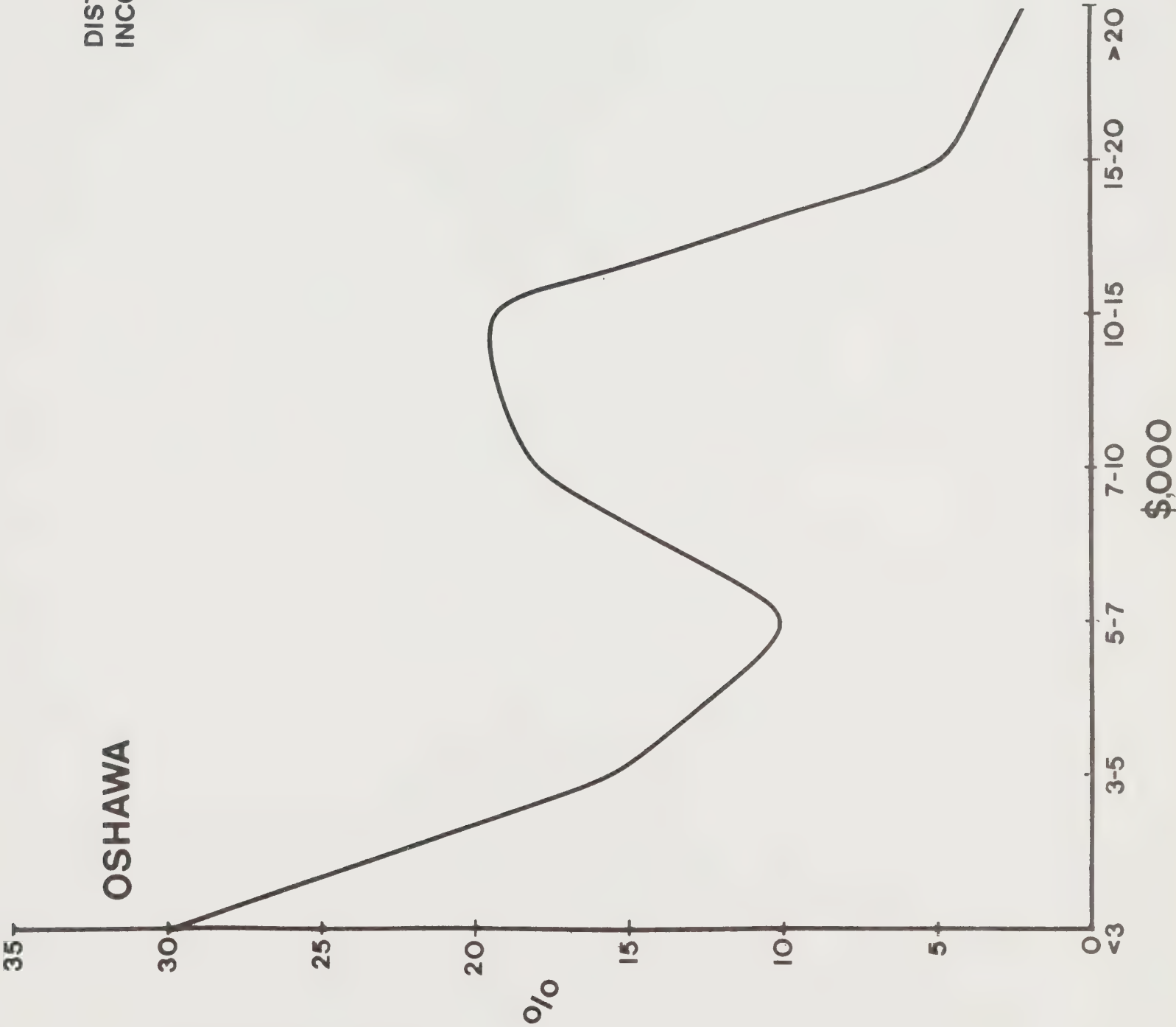
Source :  
TAXATION STATISTICS 1972  
REVENUE CANADA 1974  
(Table 6.)



FIGURE 8

DISTRIBUTION OF ALL  
INCOME TAX RETURNS 1972

OSHAWA



Source :  
TAXATION STATISTICS 1972  
REVENUE CANADA 1974  
(Table 6.)

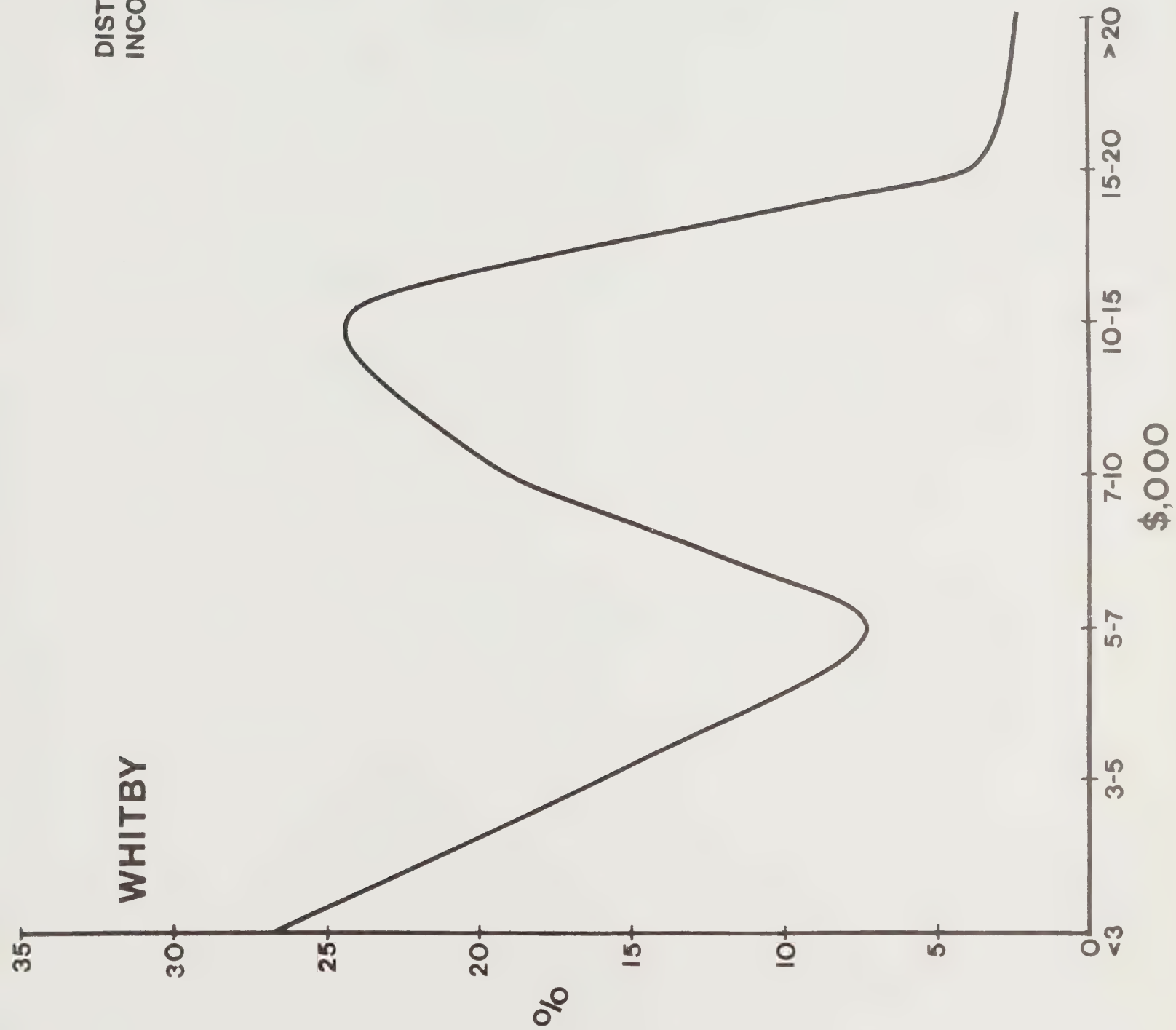




FIGURE 9

WHITBY

DISTRIBUTION OF ALL  
INCOME TAX RETURNS 1972



Source :  
TAXATION STATISTICS 1972  
REVENUE CANADA 1974  
(Table 6.)



TABLE I-11      INCOME TAX RETURNS FOR INDIVIDUALS FOR  
SELECTED PLACES IN COLA - 1972

Figure	1972 \$,000's Place	< 3 %	3-5 %	5-7 %	7-10 %	10-15 %	15-20 %	> 20 %
2	Ajax	30.7	12.6	11.6	21.1	18.3	3.9	1.8
3	Bramalea	24.3	12.5	13.0	21.1	21.0	5.6	2.6
4	Brampton	24.6	15.5	16.5	19.1	18.1	3.8	2.4
5	Metro Fringe N.	35.0	16.1	15.5	13.5	14.8	2.9	2.2
6	Metro Toronto	26.6	17.1	16.5	18.8	13.8	3.8	3.4
7	Mississauga	22.3	12.6	13.3	18.9	20.4	7.4	5.0
8	Oshawa	29.9	15.4	10.1	18.1	19.5	4.7	2.2
9	Whitby	26.8	16.1	7.2	19.3	24.7	3.4	2.4
Average		27.5	14.7	13.0	18.7	18.8	4.4	2.7
Aggregate % Distribution		55.2			37.5		7.1	
1974 Modified \$ ,000's*		< 8			8 - 14		> 14	
Aggregate % Distribution		55			28		17	

\* Adjusted for 20% inflation of income in the 1972-74 periods,  
see Appendix I.

Note: The row totals may not sum to 100 due to rounding.

TABLE I-12      ESTIMATED COMPARISON OF AGGREGATED INDIVIDUAL  
INCOME RANGES - 1974 DOLLARS

INCOME RANGES	North Pickering %	Selected Municipalities* %
< \$7 - 8,000	54	48 - 66
\$7-8,000 - \$14-15,000	29	22 - 34
> \$14-15,000	<u>17</u>	<u>13 - 21</u>
Totals	100	100

\* Metro Toronto, Metro Fringe North, Brampton, Bramalea,  
Mississauga, Ajax, Whitby, Oshawa.



were used for the following reasons:

- a) the data were more recent
- b) use of a different source provided a convenient way of checking the correctness of the assumptions made concerning the change in nominal incomes due to inflation

When the income distributions of contiguous municipalities are compared with the derived employment income profile for North Pickering, which is associated with the anticipated employment opportunities in North Pickering (see Table I-12), they are found to be generally comparable. This indicates that within the constraints of the inflation estimate used and the generalized nature of the large income-intervals, the on-site employment income profile may be used as an acceptable proxy for the resident income profile. No income class truly represents the income of employed people. Rather, income classes represent people who report a specific income for any given year. Thus, for example, the category "annual income of \$4,000 or less" contains student and housewives who work part-time, those who were laid-off or unemployed for part of the year as well as people whose nominal salary is another category, but who did not work at this salary for a full year.<sup>5</sup> This is true of all the income classes. Thus an employment income

---

5 Ontario minimum wage of \$2.25 per hour represents an annual income of more than \$4,000.





profile is a proxy. The system should be viewed as dynamic, an ever-changing picture of all individuals who start or stop working during the year, in addition to those who work continuously throughout the year, whether part-time or full-time.



APPENDIX - I

PROBLEM OF INFLATION



APPENDIX - I

PROBLEM OF INFLATION

An attempt has been made to correct for inflation, the tables based on 1971 Census data.

The following assumptions were made:

- i) inflation changed nominal income, which directly changed the income classes;
- ii) all incomes were affected to the same degree; and
- iii) there have been no other major shifts between income classes.

These assumptions allowed use of the procedure below to derive an overall inflation correction factor. This factor was then used in all tables which include income classes.

AVERAGE WEEKLY WAGES AND SALARIES FOR  
FOR PROVINCE OF ONTARIO AND METRO TORONTO\*

(ROUNDED TO NEAREST DOLLAR)

<u>Sector</u>	<u>(July) 1970</u>	<u>(Aug.) 1974</u>	<u>Increase %</u>	<u>NPP Weights</u>
Manufacturing	141 (140)	191 (189)	35 (35)	57.1
Construction	178 (191)	262 (277)	47 (45)	6
Trade	102 (112)	142 (154)	39 (41)	15.5
Service	95 (107)	133 (151)	40 (41)	<u>24.4</u>
				100.0

\* Metro Toronto data in parenthesis.

SOURCE: Statistics Canada, "Employment and Average Weekly Wages and Salaries", July 1970, and August, 1974.



The multiplication of the two last columns in the above table and subsequent summation results in a weighted average of the increase in wages and salaries, which has a value of 37.4%. This figure was then applied to modify the income classes as follows:

INCOME CLASSES

<u>1971 Census</u>	<u>Modified for Inflation to 1974</u>
< 3	< 4
3 - 6	4 - 8
6 - 10	8 - 14
10 - 15	14 - 20
> 15	> 20

An inflation correction factor has been computed for the period 1970-1974 only. Any projection of income figures would therefore require further adjustment.





PART II

RELATING THE INCOME OF INDIVIDUALS  
TO THE INCOME OF FAMILY HOUSEHOLDS  
AND OF ALL HOUSEHOLDS



PART II  
RELATING THE INCOME OF INDIVIDUALS  
TO THE INCOME OF FAMILY HOUSEHOLDS  
AND OF ALL HOUSEHOLDS

In order to assess the quantity and types of housing required for the population of North Pickering, it is necessary to relate the level of income of individuals, especially income from employment, to the incomes of families and the incomes of households. This Part of the Report details the process of translating income of individuals into family income, the basic assumptions in this process and how the two variables relate to each other, as well as to the income of family heads. It also suggests household income profiles for the New Community and discusses the relationship between family and households income profiles.

In Table II-1, the variables--the employment income of individuals, the employment income of heads of census families and of primary family households, as well as total income of primary family households--are all related, in that each describes an income distribution for the same geographical area, but these distributions vary considerably. There are more employed individuals than there are family-households, although the number of family heads approximates the number of primary family households. The number of family heads equals the number of census families. This fact is utilized in Appendix II of this Report to construct a model relating the income of family heads to the income of census families.



TABLE II-1

COMPARISON OF EMPLOYMENT INCOME PROFILES FOR  
INDIVIDUALS, FAMILY HEADS AND PRIMARY FAMILY  
HOUSEHOLDS - 1971

Place \$,000's		Ontario County			Peel County			Metro		
1974	1971	Ind. %	Head %	F.H. %	Ind. %	Head %	F.H. %	Ind. %	Head %	F.H. %
< 4	< 3	32	18	12(5)	27	10	6(3)	28	19	10(5)
4-14	3-10	54	58	42(44)	52	53	31(29)	54	56	36(36)
> 14	> 10	14	24	45(51)	21	37	63(68)	15	25	54(59)
T O T A L S		100	100	100	100	100	100	100	100	100

Ind. - Individual

Head - Family Head

F.H. - Primary Family Households; numbers in parenthesis refer to Total Family Income

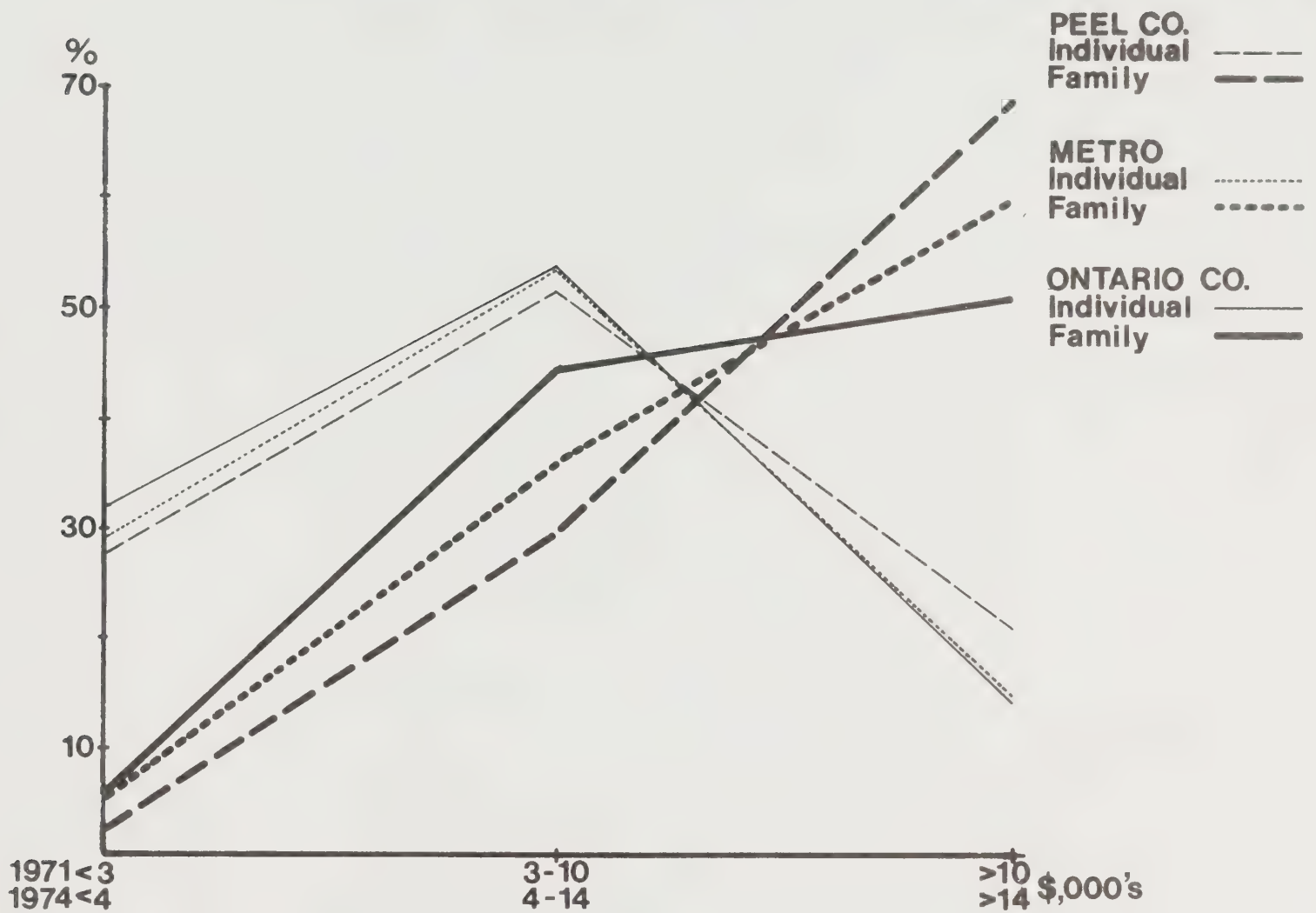
Source: 1971 Census

Since data were not available on employment income of census families, data for employment and total income for primary family households were used. Primary family households data and the census families data describe the same population of families. They differ in absolute numbers, however, by the number of census families who did not maintain a separate dwelling. These account for about 5% of the total census families in the area under study.

While it is not possible to directly translate the level of individual income into income of family households, it is possible to observe the basic characteristics of these income profiles. (See Figure 1.)



**FIG.1 RELATIONSHIP BETWEEN TOTAL INCOME OF FAMILY HOUSEHOLDS & EMPLOYMENT INCOME OF INDIVIDUALS**



EMPLOYMENT INCOME OF INDIVIDUALS is fairly concentrated (28-32%) in the lower range and is quite light (14-21%) in the upper range while the bulk (over 50%) is in the middle income range.

EMPLOYMENT INCOME OF FAMILY HEADS shows a shift from the lower category into the middle category, and from the middle category into the top category. This process is illustrated in Table II-1 and discussed in more detail in Appendix II.





INCOME OF PRIMARY FAMILY HOUSEHOLDS shows a marked difference from both the income of individuals and income of family heads. It is very light (3-5%) in the lower range, medium (29-44%) in the medium range and concentrated (51 to 68% of the total) in the upper range.

The concentration of EMPLOYMENT INCOME OF INDIVIDUALS in the lower and middle ranges reflect the presence of a considerable proportion of part-time wage-earners in the Ontario labour force.

EMPLOYMENT INCOME FOR FAMILY HEADS is much evenly distributed throughout the spectrum. Typically the family head will earn more than many individual wage earners.

INCOME OF FAMILY HOUSEHOLDS is typically concentrated in the upper range. Factors which account for this include more than one source of employment income, i.e. in addition to that of the family head, and perhaps more than one recipient of transfers (children's allowances, pensions, etc.). These and other income sources reduce the proportion of family households in the lower income range (<\$4,000). The cumulation of a number of income sources also serves to reduce the proportion in the middle-income bracket. For the sample areas therefore, there is a considerable difference between the patterns of family household, individual and family head incomes.



The implications from these various income distributions are:

- (i) The very considerable discrepancy between the distribution of individual and family income dramatizes the pertinence of this investigation i.e. relating employment income to house purchase ability, health and welfare and other social service requirements.
- (ii) The extent of transfers, toward deficient lower incomes is evident. This relative deficiency in the income of the family head in lower income families is illustrated in Table II-2. These implications provide some insight into the proportion of families which might require social assistance and home-ownership support.

TABLE II-2

TOTAL AND EMPLOYMENT\* INCOME OF HEADS OF CENSUS  
FAMILIES AS A PROPORTION OF TOTAL AND  
EMPLOYMENT INCOME OF CENSUS FAMILIES

\$ ,000's		Ontario Co.	Peel Co.	Metro
1974	1971	%	%	%
4	3	40.4 (40.5)	32.1 (29.2)	34.6 (37.5)
4 - 8	3 - 6	69.4 (70.1)	63.2 (64.8)	63.6 (64.9)
8 -14	6 -10	76.6 (77.4)	73.8 (74.6)	72.6 (73.5)
14	10	87.5 (88.5)	87.9 (89.0)	85.1 (87.0)

\* Employment income in parenthesis.

Source: 1971 Census



Approximately 90% of the population lives in family-households and most house purchases are made by families, using family income. But some families rent accommodation and to plan adequately for the requirments of the total population, it is clearly necessary to also take account of the needs of the remaining 10% of people. Some unattached individuals are of labour force age. Others are senior citizens. Income support between unattached individuals is fairly rare, but the sharing of accommodation, particularly rental accommodation by younger people, is more common. From the standpoint of community planning and, in particular for the determination of the types of housing required, it is therefore important to also consider the employment income and the total income of all households. Table II-3 provides this information for Ontario County, Peel County and Metropolitan Toronto, the same places considered in discussing the relationship between individual income and family income.

TABLE II-3

COMPARISION OF EMPLOYMENT INCOME AND TOTAL INCOME  
OF ALL HOUSEHOLDS FOR SELECTED PLACES IN COLA - 1971

Place \$,000's		Ontario Co.		Peel Co.		Metro		Average	
1974	1971	EM %	T %	EM %	T %	EM %	T %	EM %	T %
< 4	< 3	17	9	9	5	16	9	14	8
4-14	3-10	42	39	32	31	38	39	37	36
> 14	> 10	41	52	59	64	46	52	49	56
T O T A L S		100	100	100	100	100	100	100	100

EM - Employment Income

T - Total Household Income



All households, considered in Table II-3 of course include the family-households considered in Table II-1. This partially explains the differences between employment income and total income for all households given in Table II-3. The earnings of more than one individual and other additions to family income also affect the distribution of household income. The remaining differences lie in income from other sources, such as investment income and pensions, which accrue to unattached individuals.

Table II-4 compares the distribution of total family income and total household income. The differences are not great. This is to be expected since only 10% of the population and 20% of households are non-family.

Figure 2 displays graphically the distribution of total family income and total household income.

TABLE II-4

COMPARATIVE DISTRIBUTION OF TOTAL FAMILY INCOME AND  
TOTAL HOUSEHOLD INCOME FOR SELECTED PLACES IN COLA - 1971

Place \$,000's		Ontario Co.		Peel Co.		Metro	
1974	1971	F %	H %	F %	H %	F %	H %
< 4	< 3	5	9	3	5	5	9
4-14	3-10	44	39	29	31	36	39
> 14	> 10	51	52	68	64	59	52
T O T A L S		100	100	100	100	100	100

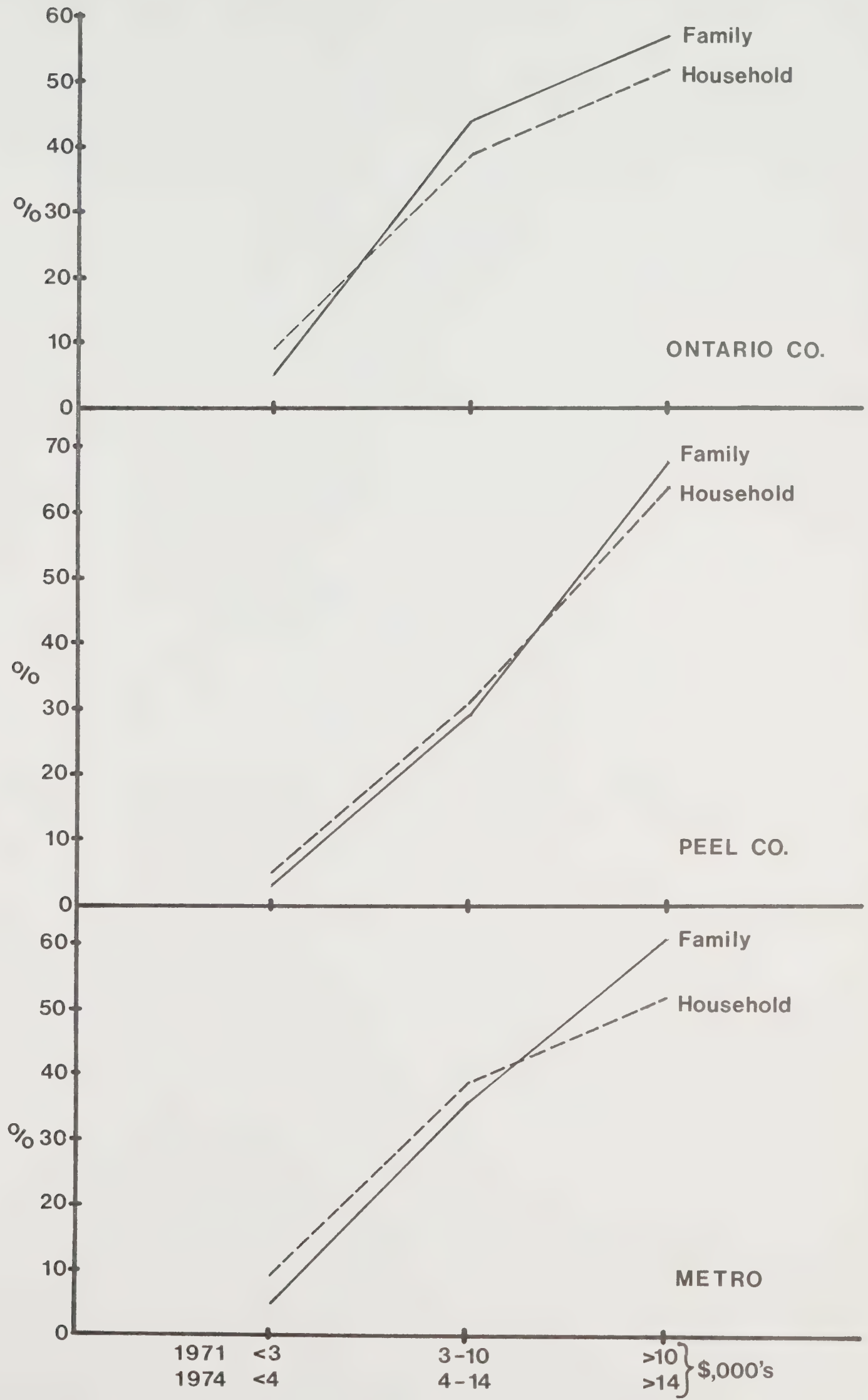
F - Total Family Income

H - Total Household Income





FIG. 2 DISTRIBUTION OF FAMILY INCOME AND HOUSEHOLD INCOME FOR SELECTED PLACES IN C.O.L.A.





The usefulness of computing and comparing family and household income distributions is that it provides some insight into the reasons why a housing policy for the New Community was prepared using household income distribution and a mix of accommodation types required by family and non-family households.

By definition, there are more employed individuals than there are households. But the total sum of money earned from *employment* income must be the same for both categories. Therefore the average number of income earners per household may be computed.

RATIO OF NUMBER OF INCOME EARNERS  
TO NUMBER OF HOUSEHOLDS - 1971

Ontario Co.	Peel Co.	Metro	Average
1.6	1.78	1.74	1.71

It can be assumed therefore, that it takes an average of 1.6-1.8 individual employment incomes to support a household.

There is little to suggest that the picture for North Pickering would be radically different from the generalized income distributions evident in Metropolitan Toronto, and Ontario and Peel Counties. It might display a somewhat higher concentration in the middle income group, resulting from the extent of the manufacturing sector in the "market" scenario for North Pickering. It might also reflect a relatively modest proportion of the New Community's labour



force commuting to the City of Toronto for employment. At present, a large proportion of Mississauga's resident labour force avails of high-income employment opportunities in Toronto. Peel County's high income, one of the highest in Canada, reflects this "exchange" situation. To this extent the Peel income distribution represents the highest end of a realistic range for North Pickering.

Table II-5 below applies this range drawn from the Counties of Peel and Ontario and Metropolitan Toronto to North Pickering. These have been applied without reference to either the "market" or "ideal" employment bases. However, within the limitations of the broad income categories used it was found that the income distribution was relatively insensitive to the considerable shifts in sectoral employment between the "ideal" and "market" scenarios (see Page I-4 and I-5.) The individual employment profiles relating to these separate scenarios are detailed in Part IV of this Report.

TABLE II-5

NORTH PICKERING'S RANGES OF INDIVIDUAL EMPLOYMENT INCOME AND  
TOTAL INCOME OF FAMILY HOUSEHOLDS AND OF ALL HOUSEHOLDS

Income Classes in \$ ,000's		R a n g e s - %		
1974	1971	Individuals	Family Households	All Households
< 4	< 3	27 - 32	3 - 5	5 - 9
4 - 14	3 - 10	52 - 54	29 - 44	31 - 39
> 14	> 10	14 - 21	51 - 68	52 - 64
T O T A L S		100	100	100



HOUSEHOLD INCOME AND HOUSING POLICY

The income classes which are used for the most part in this paper reflect the way in which the 1971 Census was reported and so have facilitated the estimation process.

For purposes of social planning all housing, whether rental or owned, has been divided into three categories. These categories reflect levels of household income and are defined as follows, using 1971 dollars:

- (a) socially assisted - 0 to \$6,000 annual income
- (b) middle income - \$6,000 to \$13,000 annual income
- (c) upper income - over \$13,000 annual income

Table II-6 below shows the distribution of household income according to the above categories for selected places in COLA. In this table the income categories are shown in both 1971 and 1974 dollars.

For greater accuracy, both Total Households and Primary Family Households<sup>1</sup> are shown. It is evident from this Table as well as from Table II-4, that the Primary Family Households have, on average, somewhat higher income.

Assuming that the household income in North Pickering will not be dramatically different from household income in other places in COLA, its income distribution could take the form indicated by Table II-7.

It should be re-stated that the number of primary family households is smaller than that of all households.

---

1 Primary Family: A Census Family in which the Head of the Family is also the Head of the Household. Members of a Primary Family typically are: The Head of the Household, the other spouse and unmarried son and daughter.





TABLE II - 6

INCOME OF TOTAL AND PRIMARY FAMILY HOUSEHOLDS - SELECTED  
PLACES 1971

Income Class		Ontario Co.		Peel Co.		Metro Tor.		Average	
1971	1974	All %	P.F. %	All %	P.F. %	All %	P.F. %	All %	P.F. %
0-\$ 6,000	0-\$8,500	24	20	13	9	23	16	20	15
100-13,000	\$8,500-18,000	47	42	45	38	42	37	45	39
14,000 +	\$18,000 +	29	38	42	53	35	47	35	46
TOTALS %		100	100	100	100	100	100	100	100

All: All households

P.F.: Primary Family Households

Source: 1971 Census, "Households by Type showing Household  
Income Group and Average Household Income per Class".

TABLE II - 7

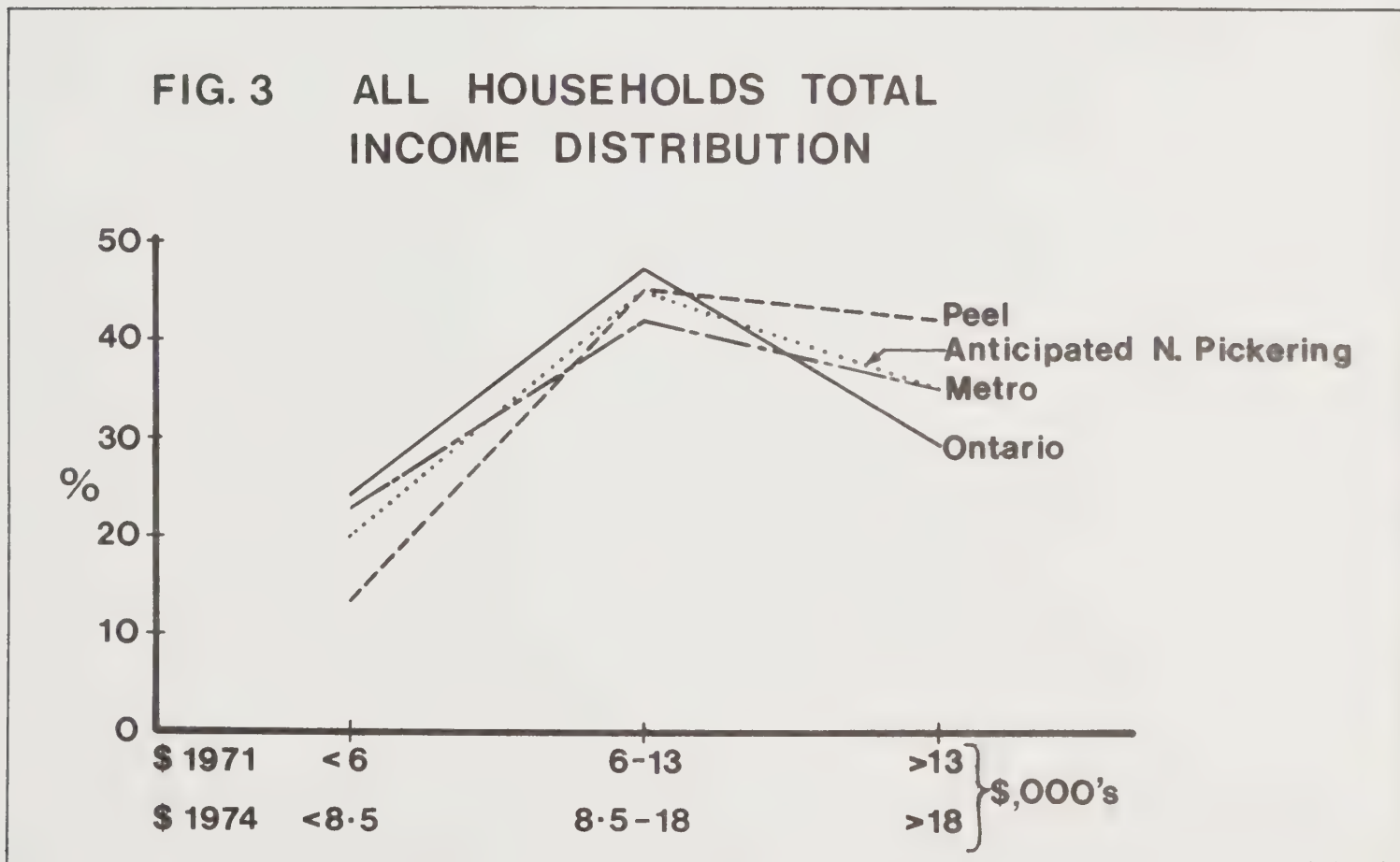
INDICATIVE DISTRIBUTION OF HOUSEHOLD  
INCOME FOR NORTH PICKERING USING 1974 DOLLARS

Income Class 1974 \$	All Households	Primary Family Households Only	Social Planning Housing Category
0 - \$8,500	20%	15%	Socially assisted
\$8,500-18,000	45%	40%	Middle Income
\$18,000 +	35%	45%	Upper Income
TOTALS	100%	100%	



Figure 3 shows graphically the Total Household Income Distributions for selected places in COLA as well as that anticipated for North Pickering.

Again, two sets of figures are shown on the "X" axis. This is necessary because inflation causes a rise in nominal income. This rise is believed to have a minimal impact on the distribution picture. This distribution is expected to remain relatively stable in the future although the annual dollar figures might change again.



ACTUAL FIGURES: Ontario County: 24 - 47 - 29

Peel County : 13 - 45 - 42

Metro : 23 - 42 - 35

A.N.P. : 20 - 45 - 35



APPENDIX II

FAMILY HEADS - CENSUS FAMILIES MODEL



APPENDIX II

FAMILY HEADS - CENSUS FAMILIES MODEL

A simple model showing the possible relationship between the income of family heads and the income of census families was constructed. Data used were provided by the 1971 Census microfilm tables, listed in the "Sources of Information" as items 2-4, 2-5 and 2-6.

The 1971 Census distinguishes between the "Primary Family Households" category used in Part II and the "Census Family" category used in this model, although both categories are for all practical purposes interchangeable. For full definitions of the two categories, see the "Dictionary of the 1971 Census Terms", reference 1-5.

TABLE AII-1

RELATIONSHIP BETWEEN TOTAL INCOME OF CENSUS FAMILIES  
AND EMPLOYMENT INCOME OF FAMILY HEADS FOR SELECTED  
PLACES

Income Class in \$ ,000's		Ontario Co.		Peel Co.		Metro Tor.	
1974	1971	C.F. %	Head %	C.F. %	Head %	C.F. %	Head %
< 4	< 3	6.7	17.7	3.9	10.2	6.9	19.0
4 - 8	3 - 6	14.9	21.3	7.6	11.5	12.7	18.4
8 - 14	6 - 10	31.6	37.3	25.5	41.9	28.7	37.4
> 14	> 10	46.8	23.7	64.0	36.4	52.7	25.2
T O T A L S		100	100	100	100	100	100

C.F. - Census Family

Head - Family Head

Source: 1971 Census.





Table AII-1 above shows the difference between the percentage of family heads in a particular income class and the percentage of census families in the same income class.

For modelling purposes Ontario County was chosen and figures rounded. The model uses data from Table AII-1. From this table the following has been established:

1.  $\Sigma$  Census Families (CF) =  $\Sigma$  Family Heads (FH)
2.  $\Sigma$  Total Income of CF >  $\Sigma$  Employment Income of FH

From 1. it follows that:

- Every census family has a family head, i.e.

CF and FH form a closed system

From 2. it follows that:

- There are families whose entire income is supplied by the head of the family
- There are families whose income is supplemented by income other than employment income of household heads.

Table AII-2 below shows the movement of family heads in the closed system of census families/family heads. A simple fact is evident from this model: family heads either stay in their family income bracket (i.e. supply its entire income) or move with the family into a higher income bracket by having their family's income supplemented by income from other sources.

In terms of the total family income distribution there is an "upward filtration" process whereby a proportion of family heads are transferred from lower employment income brackets to higher total family income levels.



TABLE AII-2

RELATIONSHIP OF FAMILY HEADS  
TO CENSUS FAMILIES

F A M I L I E S			F A M I L Y     H E A D S			
		A	B	C	D	E
\$ ,000's 1974	1971	Census families Total	Come from lower bracket	Stay in the bracket	Go into higher bracket	Family heads Total
		%	%	%	%	%
< 4	< 3	7	0	7	11	18
4-8	3-6	15	11	4	17	21
8-14	6-10	31	17	14	23	37
>14	>10	47	23	24	0	24
TOTALS		100	51	49	51	100

$$\begin{array}{lcl} A & = & B + C \\ E & = & C + D \end{array}$$

An additional illustration of the above model is provided in Table AII-3 by considering the average incomes from employment of the heads of families and the average total income of census families.

TABLE AII-3

AVERAGE TOTAL INCOMES BY INCOME CLASSES

\$,000's 1971	Family Total Income	Head Employment Income
< 3	\$ 1,533	\$ 1,152
3 - 6	4,717	4,844
6 - 10	8,002	7,772
> 10	15,140	14,142



AII-4

As could be expected, the average family income is higher than average employment income of the head, except in the \$3,000-6,000 (1971) category.

This anomaly can be explained by the relatively large proportion of lower income heads in this category (see Table AII-1). The relationship between the average income of census families and average income of census heads is demonstrated in Table AII-4.

TABLE AII-4

THE RELATIONSHIP BETWEEN THE AVERAGE INCOME OF CENSUS FAMILIES & AVERAGE INCOME OF CENSUS HEADS COMBINED WITH MOVEMENT OF HEADS THROUGH INCOME CLASSES

	\$,000's	AVERAGE INCOMES & DIFFERENCES	AMOUNT OF 2ND INCOME & TRANSFER PAYMENTS	NUMBER OF CASES
	1971	\$	\$	%
1	< 3	CF = 1,533 FH = 1,152 Δ 381	381	7
2	3-6	CF = 4,717 FH = 4,844	- 1,152 = 3,565 a) - 127 b)	15 ( 11 ( 4
3	6-10	CF = 8,002 FH = 7,772 Δ 230	- 4,844 = 3,158 a) 230 b)	31 ( 17 ( 14
4	> 10	CF = 15,140 FH = 14,142 Δ 998	- 7,772 = 7,368 a) 998 b)	47 ( 23 ( 24
		CF - Census family	FH - Family head	100



This table illustrates movements of family heads into family income classes and the effects of these movements thus:

- 1) < \$3,000: in this class, the average amount of second income and transfer payments required to bridge the gap between income of the family head and family income is \$381.
- 2) \$3 - 6,000: a) when a head from the preceding class moves into this category, his income provides only a part of the average family income. The difference between his and his family's average income is \$3,565;  
b) family heads remaining in this category have an average income higher than the average family income. This is indicated by a minus sign, e.g. \$- 127.
- 3) \$6 - 10,000: a) the difference between the average income of a family and that of a head coming from the preceding income class is \$3,158;  
b) if the family head remains in the same category as the family, the difference is \$230.
- 4) > \$10,000: a) in this category, the difference between the income of the family and the income of the head coming from the preceding income class is \$7,368;  
b) the difference for heads remaining in this category is \$998.





This model provides a crude estimation of the process whereby employment income, at least of family heads, may be translated into a census family total income. Using the latter as a close approximation of total household income the model provides a starting point for translating employment income into house purchase ability and other relevant social indicators for the New Community's households.



PART III

SOME CRITICAL INTERDEPENDENCIES

AND IMPLICATIONS



PART III  
SOME CRITICAL INTERDEPENDENCIES  
AND IMPLICATIONS

A major goal for the New Community is to encourage at least 50% of its resident labour force to both live and work in North Pickering. Earlier planning work<sup>1</sup> has established the feasibility of implementing an activity rate of 42% in North Pickering, which will produce the required number of jobs to match the estimated size of the resident labour force in the New Community and shown that, within COLUC, urban places which have a jobs to labour force ratio of approximately 1 also have a live/work ratio of .5 or better. From this the inference was drawn that matching the number of jobs available with the size of the resident labour force would provide the necessary basis for implementing a 50% live/work ratio in the New Community.

The preceding parts of this Report examined the 1971 Census data for selected places in COLA in order to determine the prevailing levels of income in various employment sectors. From this empirical data and the anticipated make-up of North Pickering's employment, the possible income ranges by sector for North Pickering were then inferred.

This part of the Report examines the inter-dependence between selected key economic variables, namely the target population, number of family households and number of jobs, with a view to assessing from the income/employment viewpoint, whether the

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<sup>1</sup> See, Urban Employment for North Pickering, North Pickering Project, 1975.

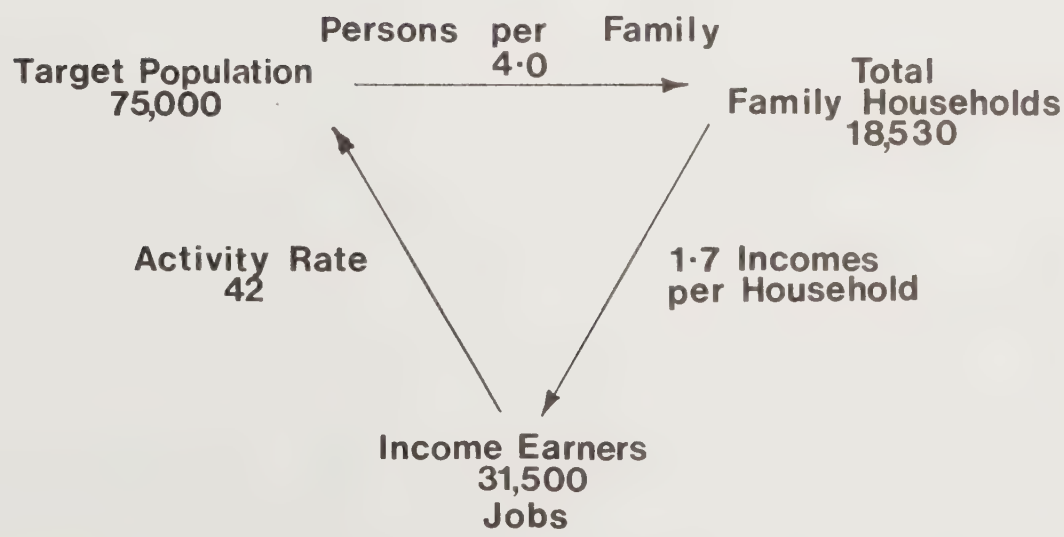


jobs likely to be available in North Pickering can support a sufficient number of family households and the number of job seekers likely to result from them to substantiate the viability of the 50% live/work goal for the New Community.

As previously mentioned, approximately 80% of all households are family households and these family households accommodate approximately 90% of the population. Also, most income support occurs within families. Therefore, while it is recognized that some of North Pickering's population will probably be unattached individuals who are self supporting and have no dependents, for this exercise the simplifying assumption has been made that the whole of North Pickering's population will live in family households.

The following simple model in Figure 1 illustrates the relationship under discussion.

**FIG.1    POPULATION – FAMILY – HOUSEHOLD  
INCOME   EARNERS   MODEL**







For illustrative purposes, this model assumes that all members of North Pickering's resident labour force will both live and work in the New Community, i.e. a live/work ratio of 100%. The model shows that assuming a population of 75,000 and an urban activity rate of 42%, 31,500 on-site jobs are produced. The model assumes that the income earners holding these jobs have income levels approximating those indicated by Table I-10. At these current income levels, the 31,500 jobs are shown supporting 18,530 average family households through a 1.7 incomes per household ratio. The usefulness of the model is that given a fixed population, it makes explicit that the number of jobs required to support a certain number of families depends on the size of family and the number of incomes (jobs) per household. For North Pickering, the number of income earners (jobs) is also the size of the resident labour force. In the model, assuming 100% live/work, if the number of jobs is to be held at 31,500 and if the number of incomes per household remains at 1.7, then the number of persons per family must be 4.

A variety of circumstances could combine to change the income-earners-to-household ratio and the size of family in the New Community over time. If the size of family continues to decrease, then the participation rate of women might further increase, leading to a higher income-earners-to-household ratio providing a higher living standard or satisfying material needs in ever shorter time periods.



Conversely, a smaller size of family may result in less pressure on income and in a reduced income-earners-to-household ratio, thus implying that increased leisure has been chosen in preference to increased income. Or, the impetus might arise on the income side, with a desire to increase total family income exerting an upward pressure on the income-earners-to-household ratio, or a desire for increased leisure might exert a downward pressure on it. In either case, a change in the income-to-household ratio could effect a change in the size of family. But these two key variables are not necessarily interdependent. One could change without exerting a change on the other.

Real family income, as opposed to an inflationary rise in nominal income, might increase, due to increased productivity, technological change, or the development of higher skills and educational levels by North Pickering residents, leading to higher employment income of individuals. Depending on the choice made between increased income or increased leisure, these factors too would result in the income-earners-to-household ratio moving either up or down.

Were North Pickering to succeed in attracting a higher percentage than average of the highest paying industrial jobs and a fairly high percentage of the higher-paying professional jobs available in the services to business management sector, then its whole income structure would be raised. The income/leisure choice made by individuals earning these higher incomes would, in turn, affect the income-earners-to-household ratio and possibly the size of family.



There are probably limits within which changes of this kind would occur in North Pickering because very high or very low figures would almost certainly have nationwide social and economic implications. A very high income-earners-to-household figure of say 1.9 implies that the vast majority of men and women of labour force age are in paid employment. Whether so many people would make such a choice is a major social question. Whether the economy could provide so many paid jobs is a major economic question. Conversely, a very low income-earners-to-household figure of say 1.3 implies either that most people are willing to accept a lower material standard of living than now exists, which is a question of considerable social and economic interest, or that at least the present living standard can be maintained while reducing the labour force participation rate, which is a most interesting economic question.

Consequently, points of fairly extreme association between the two ratios are not probable in North Pickering unless they are a reflection of rather radical socio-economic changes in our whole society. In such a case, the New Community would obviously exist in a rather different context from the one in which it has been planned.

Table III-1 sets out a full range of job requirements associated with a range of income earners-to-household (e) and persons-to-family-household (h). The extremes are those least likely to occur. The heavy line divides the anticipated level of on-site jobs in the New Community (around 31,500)



from job requirement levels in excess of "market" prospects. This table may be interpreted as an implications matrix associating possible levels of job demand with job supply through the key variables of income earners-to-household and persons-to-family-household. The questions which it raises are: Where is North Pickering likely to lie with respect to these key variables? What are the job supply and demand repercussions? How do these affect the objective of matching on-site jobs with the size of the resident labour force? As a consequence, what are the prospects for a successful 50% live/work objective?

The 1.7 income-earners-per-household assumed in the model may be a little high. It is an average figure derived from 1971 Census data for the Counties of Ontario and Peel and Metropolitan Toronto (see page 8 of Part II of this Report). But more recent estimates put this ratio at between 1.4 and 1.5 for the Province of Ontario.<sup>2</sup> Also, since available data did not permit its calculation, the income-earners-per-household ratio is being used as a proxy for income-earners-per-family-household. Since persons who are not members of a family but share accommodation and therefore constitute a household and more likely to each be self-supporting and less likely

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2 "Labour Force", Statistics Canada, 1974 Catalogue 71-001 and "Household Facilities and Equipment", Statistics Canada, 1974, Catalogue 64-202.





TABLE III-1

MATRIX OF JOBS REQUIRED FOR DIFFERENT AVERAGE  
FAMILY HOUSEHOLD SIZES AND INCOME EARNERS PER HOUSEHOLD

e h	1.3	1.4	1.5	1.6	1.7	1.8	1.9
3.1	31,452	33,871	36,290	38,710	41,129	43,548	45,968
3.2	30,469	32,813	35,156	37,500	39,844	42,188	44,531
3.3	29,545	31,818	34,061	36,364	38,636	40,909	43,182
3.4	28,676	30,882	33,088	35,294	37,700	39,906	41,912
3.5	27,857	30,000	32,143	34,286	36,425	38,571	40,715
3.6	27,083	29,167	31,250	33,333	35,417	39,500	39,583
3.7	26,351	28,378	30,405	32,302	34,559	36,486	38,514
3.8	25,658	27,632	29,605	31,579	33,553	35,526	37,500
3.9	25,000	26,923	28,846	30,769	32,692	34,615	36,538
3.0	24,375	26,250	28,125	30,000	31,875	33,750	35,625

Legend: e = required employment incomes per household  
h = size of family household

Jobs required =  $\frac{\text{Total Population (75,000)}}{\text{Persons/Household (h)}} \times \text{Number of incomes (e)}$



to be supporting or partially supporting one another, it is probable that the income-earners-per-family-household ratio is lower than the income-earners-per-household ratio. Four persons per family is almost certainly too high. Table III-2 below provides the average size of family for selected places. For the same places, this Table also gives the live/work ratio and the jobs/labour force ratio. For the five urban places which have a live/work ratio of 50% or better, and the associated jobs/labour force ratio of approximately 1 (except of course for Toronto), the range of family size is from 3.2 to 3.7. The average family size for these five places is 3.5, which is the same as the urban average for Ontario and one point lower than the Provincial average. There are indications that for the foreseeable future, the average size of family will continue to reduce.

Table III-3 sets out the number of jobs required in North Pickering, assuming an activity rate of 42%, given selected income-earners-to-household ratios and family sizes.



TABLE III-2

ASSOCIATED LIVE/WORK, JOBS/LABOUR FORCE RATIOS AND  
SIZE OF FAMILY FOR SELECTED PLACES (1971)

<u>Municipality</u>	<u>Work and Live Resident Labour Force</u>	<u>Jobs Resident Labour Force</u>	<u>Average Size of Family</u>
Hamilton	.809	1.09	3.4
Oshawa	.707	1.02	3.6
Toronto	.676	1.55	3.2
Oakville	.522	.92	3.7
Brampton	.512	.98	3.6
Whitby	.450	.92	3.8
Burlington	.395	.59	3.7
Scarborough	.370	.61	3.6
Mississauga	.330	.85	3.7
Markham	.267	.76	3.8
Chinguacousy	.259	.88	4.0
Ontario - Province			3.6
Ontario - Urban			3.5
Ontario - Rural			3.9



TABLE III-3

JOBS REQUIRED AT SELECTED INCOME-TO-HOUSEHOLDS  
RATIOS AT ACTIVITY RATE 42%

1	2	3	4	5	6	7	8	9	10
Family Size	No. of Families	R1=1.7	C1	R2=1.6	C2	R3=1.5	C3	R4=1.4	C4
4	18,750	31,875	98.8	30,000	105	28,125	112	26,250	120
3.8	19,736	33,553	93.9	31,579	99.7	29,605	106	27,632	114
3.6	20,833	35,417	88.9	33,333	94.2	31,250	100.8	29,169	108
3.3	22,727	38,636	81.5	36,364	86.6	34,061	92.4	31,818	99
3.1	24,193	41,129	76.6	38,710	81.4	36,290	86.8	33,871	93

R1, 2, 3, 4 = Incomes per household  
C1, 2, 3, 4 = Capacity of North Pickering to provide  
required jobs.

Column 2 shows the number of families which would result in North Pickering, given selected family-household sizes and a target population of 75,000 for the New Community.

A given number of these households multiplied by a given income earners-to-household ratio will, in turn, produce a corresponding number of income earners (labour force). These are the figures shown in Columns 3, 5, 7, and 9.

Working back from the 100% live/work model, it can then be assumed that all income earners would seek employment in North Pickering. In columns 4, 6, 8, and 10, the 31,500 jobs which an activity rate of 42% would produce in North Pickering has been expressed as a percentage of the number of jobs required to meet this expectation, assuming the given family sizes and income-earners-to-household ratios.





When the size of North Pickering's labour force was estimated account was taken of the population "bulge" likely to occur in say the next 10-15 years in the 20-60 age group. It is from this age group that the labour force is significantly drawn. The possibility of a New Community displaying an atypical labour force participation rate was also discussed.<sup>3</sup> This rate could be atypically low if the housing opportunities of a New Community attracted a large proportion of young parents with small children and so reduced the percentage of the population eligible for inclusion in the labour force. The presence in the community of a fairly large proportion of families with small children might also reduce the female participation rate. In the context of the present discussion, these effects would be reflected in a larger family size.

Conversely, the rate could be atypically high if, in addition to the population "bulge" in the age group from which the bulk of the labour force is drawn, a New Community attracted a high proportion of men and women in their 20's and 30's who were actively seeking employment and who had few children. In the context under discussion these effects could result in a smaller family size.

Table III-2 indicates that the high correlation between the live/work ratio and the jobs/labour force ratio does not extend to the average size of family. For example, the family size of 3.6 is shared by Oshawa, which has a live/work ratio of .707 and a jobs/labour force ratio of 1.02, Brampton with

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<sup>3</sup> Urban Systems Analysis: Aggregate Analysis of Regional and Lakeshore Corridor Patterns, North Pickering Project, 1974.  
Urban Systems Analysis: Synthesis and Implications for North Pickering, North Pickering Project, 1974.



Table III - 4

FLOW OF LABOUR  
TO AND FROM SELECTED MUNICIPALITIES IN THE CENTRAL ONTARIO LAKESHORE AREA - 1971

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35				
POPULATION	MUNICIPALITY TO FROM	TOTAL EMPLOYED LABOUR FORCE	1 Bowmanville	2 Newcastle	3 Odessa	4 Alex	5 Whitby	6 Pickering	7 Brock	8 Scugog	9 Millbrook	10 Brampton	11 Mississauga	12 Etobicoke	13 Scarborough	14 York	15 East York	16 North York	17 Toronto City	18 Hamilton	19 Aurora	20 Markham	21 Wheatmark	22 Richmond Hill	23 Burlington	24 Milton	25 Oakville	26 Pick. Twp.	27 Whitby E. Chippewas	28 Tor. Gore	29 Port Credit	30 Streetsville	31 Net Stated	32 Residual (1)	33 Net Flow (2)			
8,947	Bowmanville T. (3)	3,505	8,015	65	845	25	75	10						5	10	5		55						5			5					225	150	-100				
1,942	Newcastle V.	810	100	250	190		15																									40	90	120				
91,587	Odessa C.	37,980	410	50	28,880	1,285	2,940	255	5	10	5	15	60	75	595	20	50	355	975	25	10	60			5			300	85	5		2,165	1,100	-730				
12,515	Alex T.	5,495			485	2,075	285	240				5	25	65	540	30	50	335	745			5				10	195					235	155	-695				
25,314	Whitby T.	10,090	35		2,615	685	4,648	155					15	50	325		25	105	465			35		10		5	165	25				300	310	805				
2,537	Pickering V.	1,095	5		65	135	50	285					5	10	160	10		55	170			5					75					60	45	-1,805				
3,484	Brock V.	1,375			90		5		870					5	10		5	20	35			10	5	5								165	370	570				
681	Scugog V.	275	5		50		10		5	85				5		5			15													5	70	175				
908	Millbrook V.	330			10									5	5				5													30	270	125				
41,711	Brampton T.	19,150				5						8,810	1,805	925	65	175	10	390	980	10		15	5	15		5						2,665	5	55	90	1,225	760	305
156,070	Mississauga T.	68,710	5		35	10	5	15				1,105	22,885	11,000	495	1,200	160	2,590	16,305	200	10	25	5	45	75	95	1,430	15				930	40	2,890	410	4,600	2,320	10,095
182,686	Etobicoke B.	133,605			70	10	15	50				630	8,700	47,385	1,485	5,960	545	8,780	45,505	200	30	180	20	95	90	55	740	40				705	55	2,360	3,845	33,620		
324,210	Scarborough B.	151,865	40		455	305	235	635				130	980	2,520	58,235	1,235	4,615	17,325	51,970	95	35	1,215	40	165	30	15	120	595				185	120	5	9,325	3,240	58,240	
147,301	York B.	72,380	5		20	15	5	45			5	210	1,995	4,725	1,315	7,320	620	8,585	38,140	50	25	175	25	90	20	20	205	30				200	95	5	5,920	2,510	37,225	
104,784	East York B.	56,275			85	35	20	45				45	455	925	4,125	415	5,055	4,805	34,475	35	5	190	10	45	5	30	60	65				45		3,965	1,295	36,425		
504,150	North York B.	237,090	15		205	50	90	185			5	655	4,570	10,085	10,400	10,840	3,165	77,640	90,135	200	150	1,935	115	965	85	20	370	195	5	540	10	300	50	15,555	8,640	80,305		
712,784	Toronto C.	339,140			195	85	80	260		5	5	635	5,555	13,475	11,270	5,115	4,360	22,355	242,025	355	60	875	120	350	170	55	990	265	10	540	35	570	100	36,215	12,015	-196,485		
309,173	Hamilton C.	133,860			5	5	5					25	185	160	50	10	15	135	885	108,380				30	3,830	70	1,295					25	30	10	9,335	9,430	-12,310	
13,614	Aurora T.	5,565									5	95	125	100	80	30	555	820			1,880	115	355	275			5	5				5		490	650	1,420		
36,684	Markham T.	15,130			45	15	15	25			5	30	100	240	1,430	195	220	2,825	3,390	5	65	4,040	40	560		5	10	40				935	875	3,630				
18,941	Wheatmark T.	7,825			5	5	5	10			10	145	150	125	35	40	640	900	10	630	100	2,540					5	10				15	5	545	815	1,640		
32,384	Richmond Hill T.	14,260			10			10			10	50	185	375	330	290	130	2,130	2,580	10	295	825	175	4,025			15	10				5		1,015	1,490	5,975		
87,023	Burlington T.	36,740					5					85	710	455	65	40	45	190	1,475	10,315		5	5	10		24,815							80	5	2,715	2,170	15,120	
7,018	Milton T.	3,110										60	150	45		10	5	30	85	25					35	2,885	160					85	5	15	230	185	-1,315	
61,485	Oakville T.	26,775	5		10			10				110	2,790	1,170	75	105	35	345	3,515	385		5	5	10	400	335	21,885	5				95	370	85	1,690	1,235	1,980	
31,734	Pickering Twp.	12,455	10		10	440	860	250	560	5	10	10	55	155	2,295	95	245	890	2,995	5		250	10	15	5			5	1,485	10		10		1,030	615	8,705		
3,407	Whitby East Twp.	1,355	10		775	40	100							5	5			10	20																			
30,997	Chippewas Twp.	12,805										1,990	1,600	1,280	95	335	40	690	1,395	10	5	25	10	5	5	5	65						80	60	915			
1,362	Toronto Gore Twp.	580				5						45	80	60	10	15		30	45													45	85	25	130	365		
8,442	Port Credit T.	4,835										190	5	1,130	590	15	15	10	70	915	10				20	5	190					30		1,788	40	355	150	-2,215
6,840	Streetsville T.	3,130										190	700	220	10	40	10	85	270	25	5					25	30	65				45		1,085	155	130	990	
	East of Province	1,915,550	1,035	225	5,135	235	550	180	115	10	165	2,960	3,760	3,800	1,985	1,535	380	4,920	13,520	25,880	975	1,390	1,895	970	2,290	1,150	1,670	220	60	1,650	25	220	165	169,855	1,687,685			

Source: 1971 Census

Notes:

(1) Residual consists of people working outside area or whose returns were incomplete

(3) Explanation of abbreviations: T = Town; V = Village; C = City;

B = Borough; Twp. = Township

(2) Net Flow equals the resident labour force minus total jobs in the Community

Minus sign indicates more in-commuting than out-commuting



a live/work ratio of .512 and a jobs/labour force ratio of .98 and Scarborough which has a live/work ratio of .370 and a jobs/labour force ratio of .61. The highest family sizes are in Markham and Chinguacousy which have the very low live/work ratios of .267 and .259 respectively and correspondingly low jobs/labour forces ratios. The fact that a jobs/labour force ratio of approximately 100% tends to produce only a 50% live/work ratio reflects the very high commuting rate in COLUC. Table III-4 provides a more detailed picture of the commuting flows. The diagonal of figures in italics across the table gives the number of people who both live and work in each of the places considered. Reading the table across shows where people living in one place commute to. Reading the table down shows where people commute from.

These complex patterns could result from many combinations of factors. But it is clear that no person can live and work in the same urban place unless suitable employment and suitable housing are both available for him in that place; and that no family can live in an urban place and be supported by income(s) earned in that same urban place unless the employment base of that urban place is such that it can provide the number of incomes per household which are supporting the size of family-household in that urban place.

In planning North Pickering, the size of the labour force was estimated for a fairly narrow population range and using population-structure trends expected for the urban population of the Province. The number produced was then matched with a number of jobs produced by an urban activity rate which is



feasible for the New Community. Given the experience of COLUC, it seems apparent that this is necessary if a 50% live/work ratio is to be implemented in the New Community. But it is recognized that the number of income earners in North Pickering will vary about this figure, perhaps more or less constantly, depending on the combined socio-economic effects of the size of family and the number of income earners per household.

Unlike Markham or Chinguacousy, where the inter-related impact of variables may not have been measured and planned for, it is apparent from Table III-3 that if family size in North Pickering were to be quite large, say 3.8 or 4, then in any case except for an income-to-households ratio of 1.7, the New Community can maintain and more than maintain its 100% jobs/labour force ratio. In the case of the 1.7 incomes-to-household ratio, which itself is not highly probably, the greatest variance is only 6%.

The "boxed" portion of the Table highlights the Provincial average family size and suggests that 3.3 is the probable "low" for a range of family sizes for the next 10 to 15 years. This portion of the Table offers a fair basis for assessing the New Community's capacity to meet its planning expectations under more difficult conditions. At income-earners-to-households ratios of 1.5 and 1.4, no significant difficulties arise. Except for a family size of 3.6 and an incomes-to-households ratio of 1.6, some difficulties could be experienced at the higher





income-earners-to-households ratios, particularly at the lower family size of 3.3. This lower family size is a real possibility. However, it would appear that incomes-to-households ratios of 1.7 and 1.6 and in particular incomes-to-family-household ratios of this order are much less probable than the lower ratios. In general then it can be said that while the possibility of falling from the desired 100% jobs/labour force ratio by approximately 18% does exist, this is not probable. If an allowance for unattached, self-supporting individuals of labour force age is reintroduced into the concept, then an incomes-to-household ratio of 1.5 (the higher end of the current range 1.5-1.4) is a sufficiently harsh test. Within the probable family size range of 3.6-3.3, the New Community has a reasonable statistical probability of meeting its 50% live/work objective.<sup>4</sup>

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4 For a full discussion of the "sufficient" conditions for a live/work community, see "Strategic Proposals for Implementing a Live/Work Community at North Pickering," North Pickering Project, 1975.



PART IV  
TOWARD AN OCCUPATION-INCOME PROFILE  
FOR NORTH PICKERING



## PART IV

### FORWARD

This Part is divided into two sections:

Section A deals with the employment distribution by occupational groups for the four main urban employment sectors - Manufacturing, Construction, Trade and Service.

Section B shows the income structure by the occupational groups. The resulting figures for income classes in Tables IV-10 and IV-11, correspond, of course, to figures derived for income classes in Part I. Any discrepancies are due to computing and rounding processes.



PART IV - SECTION A  
OCCUPATION PROFILES BY MAJOR SECTORS

Data for this Section was provided from the Statistics Canada computer printout for the Province of Ontario, reference item 3-1.

This huge table -608 occupations in 68 industries was condensed into 15 occupational groups in 11 major employment sectors in Table IV-1.

Table IV-2 is a further simplification of industrial (employment) sectors corresponding to the four major employment sectors postulated for North Pickering. This table reveals the internal occupational composition of every sector as a percentage of the total employment in that sector.

Tables IV-3 and IV-4 show the occupational structure within these four major employment sectors for North Pickering's "market" and "ideal" scenarios respectively.

The figures in the extreme right column of each of the above-mentioned tables, are the weights used in Part B of this Report.





TABLE IV-1

SUMMARY TABLE OF THE OCCUPATION STRUCTURE BY INDUSTRY  
FOR PROVINCE OF ONTARIO - 1971

Major Occupation Group	SIC Division Occupation	Agriculture (1)			Primary (1)			Manufacturing			Construction			Transportation			Wholesale (2)			+	Retail (2)			=	Trade (2)			Finance, Insurance Real Estate			Community, Business & Personal Services			Public Administration			Total (3)		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3		1	2	3		1	2	3	1	2	3	1	2	3	1	2	3			
11	Management & Administration	225	.1	.1	345	.2	.2	34,855	4.2	<u>22.1</u>	7,905	3.6	5.0	8,050	3.6	5.1	945	7.0	6.0		6,535	1.8	4.2		15,985	3.2	<u>10.2</u>	19,040	<u>12.1</u>	<u>12.1</u>	38,310	4.8	<u>24.2</u>	30,250	<u>12.2</u>	<u>12.2</u>	157,070	4.6	100
21	Natural Sciences	240	.1	.2	500	.3	.4	37,285	4.6	<u>35.5</u>	4,610	2.2	4.3	9,505	4.3	9.0	1,950	1.4	1.8		695	.2	.6		2,645	.5	2.5	2,955	1.9	2.8	24,020	3.0	<u>22.8</u>	19,390	7.8	<u>18.4</u>	104,950	3.1	100
23	Social Sciences	10	-	-	10	-	-	1,025	.1	3.1	40	-	.1	475	.2	1.4	200	.1	.6		115	-	.3		320	-	.9	655	.4	1.9	22,855	2.9	<u>20.7</u>	7,215	2.9	<u>22.0</u>	32,785	.9	100
25	Religion	-	-	-	5	-	-	10	-	-	10	-	-	-	-	-	5	-	-		20	-	.2		20	-	.2	-	-	-	7,120	.9	<u>20.4</u>	75	-	1.0	7,235	.2	100
27	Teaching & Related	5	-	-	10	-	-	430	-	.3	10	-	-	540	.2	.4	80	-	-		190	-	.1		270	-	.2	110	-	-	124,455	<u>16.8</u>	<u>28.8</u>	2,520	1.0	1.9	128,505	3.8	100
31	Medicine & Health	955	.7	.7	955	.6	.7	2,365	.3	1.9	40	-	-	340	.1	.2	160	.1	.1		3,515	2.8	.1		3,675	.7	2.9	240	.1	.1	111,905	<u>14.2</u>	<u>20.9</u>	4,560	3.6	3.6	124,355	3.7	100
33	Artistic & Literary	85	-	.2	110	-	.3	7,110	.9	.3	210	.1	.6	3,535	1.6	<u>10.3</u>	335	.2	.9		2,575	.7	7.5		2,910	.6	8.5	365	.1	1.0	16,825	2.1	<u>49.3</u>	2,845	1.1	8.3	34,100	1.0	100
41	Clerical	1,505	1.1	.2	1,810	1.2	.3	122,165	<u>14.8</u>	<u>20.8</u>	12,490	6.1	2.1	62,020	<u>27.8</u>	<u>10.5</u>	38,080	<u>28.2</u>	6.4		73,160	<u>20.2</u>	<u>12.3</u>		111,240	22.3	18.1	79,045	<u>50.8</u>	<u>12.3</u>	120,420	<u>15.2</u>	<u>20.4</u>	73,565	<u>28.7</u>	<u>12.4</u>	590,270	<u>17.6</u>	100
51	Sales	740	.5	.2	815	4.5	.2	44,485	5.4	<u>13.8</u>	2,570	1.2	.8	3,915	1.8	1.2	36,900	<u>27.3</u>	<u>11.5</u>		176,010	<u>48.5</u>	<u>57.9</u>		212,910	42.8	66.1	36,745	<u>23.8</u>	<u>12.4</u>	15,185	1.9	4.7	1,330	.5	.4	320,495	<u>8.5</u>	100
61	Service	475	.3	.1	725	.5	.2	17,235	2.1	4.8	2,445	1.2	.6	7,600	3.4	2.1	1,430	1.1	.4		13,730	3.8	3.8		15,160	3.0	4.2	8,365	5.3	2.3	241,205	<u>30.8</u>	<u>27.7</u>	60,550	<u>24.4</u>	<u>17.0</u>	355,935	<u>10.8</u>	100
71	Farming	121,830	<u>23.7</u>	<u>25.3</u>	122,210	<u>27.1</u>	<u>25.5</u>	1,265	.2	.8	4,535	2.2	3.1	605	.3	.4	1,225	.9	.8		610	.2	.4		11,830	.4	1.2	390	.2	.2	7,205	.9	5.0	4,485	1.8	3.1	142,785	4.2	100
73	Fishing & Hunting	5	-	.4	960	.7	<u>21.0</u>	85	-	7.1	5	-	.4	-	-	-	35	-	2.9		10	-	.8		45	-	3.7	-	-	-	5	-	.4	75	-	6.3	1,185	-	100
75	Forestry	115	-	.9	5,215	3.7	<u>44.2</u>	1,800	.2	<u>15.4</u>	205	-	1.7	450	.2	3.8	140	.1	1.2		5	-	-		150	-	1.2	15	-	.1	95	-	.8	3,670	1.4	<u>21.6</u>	11,650	.3	100
77	Mining & Quarrying	10	-	-	20	-	.1	1,340	.2	6.7	1,355	.6	6.8	145	-	.7	55	-	.2		5	-	-		70	-	.3	30	-	.1	85	-	.4	65	-	.3	19,735	.5	100
81/82	Processing	880	.6	.7	1,255	.9	1.0	105,090	<u>12.8</u>	<u>25.7</u>	1,120	.5	.9	600	.2	.4	2,865	2.1	2.3		6,510	1.8	5.2		9,375	1.9	7.6	395	.2	.3	2,265	.2	1.8	385	.1	.3	123,185	3.6	100
83	Machining & Related	25	-	-	200	.1	.1	103,990	<u>12.7</u>	<u>21.5</u>	8,835	4.3	6.9	1,825	.8	1.4	3990	2.9	3.1		860	.2	.6		4,850	.9	3.8	670	.4	.5	4,055	.5	3.1	820	.3	.6	127,555	3.8	100
85	Product Fabricating	120	-	-	460	.1	.3	179,730	<u>21.8</u>	<u>24.5</u>	6,070	2.9	2.1	12,650	5.7	4.5	1,070	.8	.3		1,950	.5	.7		58,530	<u>11.8</u>	<u>20.0</u>	910	.5	.3	10,320	1.3	3.7	4,100	1.6	1.4	278,245	8.3	100
87	Construction	150	.1	-	420	.2	.3	23,230	2.8	<u>11.1</u>	134,750	<u>25.5</u>	<u>24.5</u>	24,245	<u>10.8</u>	<u>11.8</u>	2,735	2.0	1.3		2,085	.6	.9		4,825	.9	2.3	1,250	.8	.5	6,960	.8	3.3	9,275	3.7	4.4	208,675	<u>8.2</u>	100
91	Transport Equip. Operating	535	.4	.4	1,175	.1	.9	16,555	2.0	<u>13.2</u>	7,385	3.6	6.1	63,075	<u>28.4</u>	<u>22.2</u>	9,770	7.2	8.0		7,355	2.0	6.0		17,125	3.4	<u>14.1</u>	360	.2	.2	6,210	.7	5.1	5,350	2.1	4.4	120,640	3.5	100
93	Materials Handling & Related	570	.4	.6	790	.5	.9	45,780	5.6	<u>24.4</u>	3,280	1.6	3.9	9,655	4.3	<u>11.4</u>	7,405	5.5	8.8		10,325	2.8	<u>12.2</u>		17,730	3.6	<u>21.0</u>	385	.2	.4	2,000	.2	2.3	2,045	.8	2.4	84,050	2.5	100
95	Other Crafts	65	-	.1	125	-	.2	27,580	3.4	<u>20.2</u>	575	.2	1.2	5,750	2.6	<u>12.4</u>	700	.5	1.5		635	.1	1.3		1,335	.3	2.8	790	.5	1.7	5,550	.7	<u>12.0</u>	3,630	1.4	7.8	46,125	1.3	100
99	Not Elsewhere Classified	260	.2	.3	365	.3	.4	34,205	4.2	4.4	4,365	2.1	5.7	4,430	2.0	5.8	3,365	2.5	4.4		7,830	2.2	10.3		11,190	2.2	14.7	1,030	.6	1.3	10,990	1.3	<u>14.4</u>	7,510	3.0	9.8	76,165	2.2	100
Total (2)		129,910	100	3.8	139,800	100	4.1	819,335	100	<u>24.4</u>	205,785	100	6.1	222,010	100	6.6	134,840	100	4.0		362,720	100	<u>10.8</u>		497,555	100	<u>14.8</u>	155,505	100	4.6	787,255	100	<u>23.4</u>	247,455	100	7.3	3,354,355	100	100

## LEGEND:

A. The Major Headings are drawn from Standard Industrial Classification (SIC) Divisions as follows:

- |                      |                    |  |
|----------------------|--------------------|--|
| 1 - Agriculture      | 5 - Manufacturing  | 8 - Trade                                      |
| 2 - Fishing          | 6 - Construction   | 9 - Finance, Insurance, Real Estate            |
| 3 - Forestry         | 7 - Transportation | 10 - Community, Business and Personal Services |
| 4 - Mining (Omitted) |                    | 11 - Public Administration                     |

B. Subheadings 1, 2, 3 under the major heading of each column represent:

- The number of people in each of the major occupational groups for the SIC Divisions shown.
- The percentage distribution of total employment within a major industrial classification by occupation.

- The percentage distribution of total employment within a major occupational group by industry.  
The figures in italics show concentrations of employment within industries by occupation.  
Those in italics and underlined show concentrations of employment within occupational groups by industry.

## FOOTNOTES:

- Primary consists of Divisions 1, 2 & 3. Agriculture, which is included in Primary, is also shown separately.
- Trade is an aggregate of Wholesale and Retail, which are also shown separately.
- The totals may not sum due to the omission of the "Occupation Not Stated" category. This category is not greater than 2% of each \$2 column total.

Source: 1971 Census



TABLE IV-2  
SUMMARY OF INDUSTRIAL SECTORS BY MAJOR OCCUPATION GROUPS FOR  
ONTARIO

Occup. Group	Industrial Sector	Manufac- turing	Con- struction	Trade	Service
	Occupation	%	%	%	%
11	Managerial & Administration	4.2	3.6	3.2	6.8
27	Teaching	-	-	-	9.0
31	Medicine & Health	-	-	.7	8.3
21 23 25 33	Technical, Social, Religion, Artistic & Related	5.6	2.3	1.1	8.3
41	Clerical	14.9	6.1	22.3	23.7
51	Sales	5.4	1.2	42.8	4.0
61	Service	2.1	1.2	3.0	22.5
71	Farming	.2	2.2	.4	.9
73 75 77	Other Primary	.4	.6	-	.3
81 82	Processing	12.8	.5	1.9	.3
83 85	Machinery & Pro- duct Fabricating	34.6	7.2	12.7	2.5
87	Construction	2.8	65.5	.9	3.0
91	Transport Equip- ment Operating	2.0	3.6	3.4	5.3
93 95 99	Materials Hand- ling, Other Crafts, N.E.C	13.2	3.9	6.1	3.8
00	Occupation not stated	1.8	2.1	1.5	1.3
	Totals	100	100	100	100

Source: 1971  
Census

N.E.C. - Not Elsewhere Classified



TABLE IV-3  
TOTAL OCCUPATION BY INDUSTRIAL SECTORS FOR NORTH PICKERING'S  
POSTULATED "MARKET" SCENARIO

Occup. Group	Industrial Sector Occupation	Manufac- turing	Con- struction	Trade	Service	Total by occupa- tion (Weights)
11	Managerial & Administration	2.3	.2	.5	1.5	4.5
27	Teaching	-	-	-	1.9	1.9
31	Medicine & Health	-	-	.1	1.8	1.9
21 23 25 33	Technical, Social, Religion, Artistic & Related	3.2	.1	.2	1.8	5.3
41	Clerical	8.5	.4	3.5	5.1	17.5
51	Sales	3.1	.1	6.6	.9	10.7
61	Service	1.2	.1	.5	4.8	6.6
71	Farming	.1	.1	.1	.2	.5
73 75 77	Other Primary	.2	-	-	.1	.3
81 82	Processing	7.3	-	.3	.1	7.7
83 85	Machinery & Pro- duct Fabricating	19.8	.4	2	.5	22.7
87	Construction	1.6	3.9	.1	.6	6.2
91	Transport Equip- ment Operating	1.1	.2	.5	1.1	2.9
93 95 99	Materials Hand- ling, Other Crafts N.E.C.	7.5	.2	.9	.8	9.4
00	Occupation not stated	1.0	.1	.2	.3	1.6
Total by Industry (=Scenario Weights)		57.1	6	15.5	21.4	100

Source: 1971  
Census

N.E.C. - Not Elsewhere Classified



TABLE IV-4

TOTAL OCCUPATION BY INDUSTRIAL SECTORS FOR NORTH PICKERING'S

POSTULATED "IDFAL" SCENARIO

Occup. Group	Industrial Sector Occupation	Manufac- turing	Con- struction	Trade	Service	Total by occupa- tion (Weights)
11	Managerial & Administration	% 1.6	% .2	% .5	% 2.8	% 5.1
27	Teaching	-	-	-	3.6	3.6
31	Medicine & Health	-	-	.1	3.4	3.5
21 23 25 33	Technical, Social, Religion, Artistic & Related	2.1	.1	.2	3.4	5.8
41	Clerical	5.7	.3	3.7	9.6	19.3
51	Sales	2.1	.6	7.1	1.6	11.4
61	Service	.8	.6	.5	9.1	11.0
71	Farming	-	.1	.1	.4	.6
73 75 77	Other Primary	.2	-	-	.1	.3
81 82	Processing	4.9	-	.3	.1	5.3
83 85	Machinery & Pro- duct Fabricating	13.2	.3	2.1	1	16.6
87	Construction	1.1	3.1	.2	1.2	5.6
91	Transport Equip- ment Operating	.8	.2	.6	2.1	3.7
93 95 99	Materials Hand- ling, Other Crafts, N.E.C.	5	.2	1	1.5	7.7
00	Occupation not stated	.6	.1	.2	.5	1.4
Total by Industry (=Scenario Weights)		38.1	4.8	16.7	40.4	100

Source: 1971 Census

N.E.C. - Not Elsewhere Classified





PART IV - SECTION B.OCCUPATION - INCOME STRUCTURE

The method used in this section is largely analogous to the method used in Part I to compute the relative sizes of income classes by industrial sectors.

First, information was gathered on Peel and Ontario counties, as well as Metropolitan Toronto and the Province of Ontario (Tables IV-5 to IV-8 respectively). These tables served as a basis for the summary Table IV-9, which shows the ranges of employment income in various occupational groups by income classes. The income classes used here are the unmodified 1971 Census classes.

Table IV-9 also shows the average proportion of total employment in each occupational group and North Pickering's "market" scenario weights, as computed in Section A of this Part.

These weights were used to produce Table IV-10. This table shows the estimated employment structure by occupational groups for the New Community, dispersed by income class, using both 1971 Census and 1974 modified income classes for comparison.

The weights in the extreme right column indicate the proportion of each occupational group in total employment.



**TABLE IV-5**  
INCOME STRUCTURE BY OCCUPATION  
FOR ONTARIO COUNTY

Occupation \ \$ ,000 's	< 3	3-6	6-10	10-15	>15	No income	Total for Occupation
Managerial and Administrative	% 0.3	% 0.4	% 1.2	% 1.1	% 0.8	% -	% 3.9
Teaching	0.8	0.7	1.6	0.6	0.1	-	3.8
Medicine & Health	1.6	1.4	1.0	0.1	0.3	-	4.4
Scientific and Artistic	0.9	0.6	1.2	1.3	0.4	-	4.4
Clerical	5.8	5.8	4.1	1.1	0.1	0.2	17.1
Sales	4.0	1.9	2.4	1.1	0.4	0.1	9.9
Service	4.8	2.0	1.6	0.6	0.1	0.1	9.2
Farming	2.0	0.8	0.4	0.1	0.1	0.9	4.3
Other Primary	0.1	-	-	-	-	-	0.1
Processing	0.7	0.8	1.3	0.3	-	-	3.1
Machining and Product Fabricating	2.4	6.5	6.5	2.0	0.3	-	17.7
Construction	1.0	1.0	2.0	1.4	0.2	-	5.6
Transport Equipment Operating	0.5	0.9	1.5	0.3	0.1	-	3.3
Other	1.8	1.6	2.1	0.6	0.1	-	6.2
Not stated	2.3	1.4	1.3	0.5	0.2	1.1	6.8
Totals	29.0	25.8	28.2	11.1	3.1	2.4	99.4

Source: 1971 Census.

Note: Totals may not sum due to rounding.



**TABLE IV-6**  
INCOME STRUCTURE BY OCCUPATION  
FOR METRO TORONTO

Occupation \ \$ ,000's	< 3	3-6	6-10	10-15	>15	No income	Total for Occupation
	%	%	%	%	%	%	%
Managerial and Administrative	0.3	0.6	1.5	1.3	1.7	-	5.4
Teaching	0.7	0.6	1.1	0.7	0.3	-	3.4
Medicine & Health	0.9	1.1	0.9	0.2	0.3	-	2.4
Scientific and Artistic	1.4	1.0	1.8	1.4	0.7	-	6.3
Clerical	7.3	10.0	5.3	0.6	0.1	0.2	23.5
Sales	3.2	2.1	2.5	1.4	0.7	0.1	10.0
Service	4.5	3.2	1.7	0.5	0.1	0.1	6.0
Farming	0.3	0.2	0.1	-	-	-	0.6
Other Primary	-	-	-	-	-	-	-
Processing	0.5	0.8	1.0	0.2	-	-	2.5
Machining and Product Fabricating	2.3	3.5	4.4	1.0	0.1	-	11.3
Construction	0.7	1.2	2.4	1.1	0.2	-	4.5
Transport Equipment Operating	0.6	0.7	1.4	0.3	0.1	-	3.1
Other	2.2	1.8	2.0	0.5	0.1	-	6.6
Not stated	2.4	2.2	1.8	0.5	0.2	0.9	8.0
Totals	27.3	29.0	27.9	9.7	4.6	1.3	99.8

Source: 1971 Census.

Note: Totals may not sum due to rounding.



**TABLE IV-7**  
**INCOME STRUCTURE BY OCCUPATION**  
**FOR PEEL COUNTY**

<div> <div>\$ ,000's</div> <div>Occupation</div> </div>	< 3	3-6	6-10	10-15	>15	No income	Total for Occupation
Managerial and Administration	0.3	0.5	1.6	1.8	2.5	-	6.7
Teaching	0.8	0.7	1.3	0.7	0.2	-	2.7
Medicine & Health	1.0	0.8	0.7	0.1	0.3	-	2.9
Scientific and Artistic	1.0	0.6	1.9	1.9	0.9	-	6.3
Clerical	7.0	7.9	4.5	0.9	0.2	0.1	22.6
Sales	3.2	1.6	2.9	2.2	1.1	0.1	11.1
Service	3.8	1.5	1.4	0.6	0.1	-	7.4
Farming	1.0	0.5	0.3	0.1	0.1	0.3	2.3
Other Primary	0.1	-	-	-	-	-	0.1
Processing	0.6	0.7	1.1	0.3	0.1	-	2.8
Machining and Product Fabricating	1.9	3.3	5.9	2.0	0.2	-	13.3
Construction	0.6	0.7	1.7	1.1	0.2	-	4.3
Transport Equipment Operating	0.6	0.6	1.9	0.7	0.2	-	4.0
Other	2.0	1.5	2.2	0.7	0.2	-	6.6
Not stated	2.1	1.5	1.8	0.6	0.3	1.0	7.3
Totals	26.0	28.4	29.2	13.7	6.8	1.5	99.4

Source: 1971 Census.

Note: Totals may not sum due to rounding.





**TABLE IV-8**  
INCOME STRUCTURE BY OCCUPATION  
FOR PROVINCE OF ONTARIO

Occupation \ \$ ,000's	< 3	3-6	6-10	10-15	>15	No income	Total for Occupation
Managerial and Administrative	0.3	0.5	1.2	1.1	1.3	-	4.4
Teaching	0.8	0.7	1.4	0.7	0.3	-	3.9
Medicine & Health	1.2	1.2	0.9	0.1	0.8	-	3.7
Scientific and Artistic	1.2	0.8	1.5	1.2	0.6	-	5.3
Clerical	6.1	7.1	3.8	0.5	0.1	0.2	17.8
Sales	3.5	1.9	2.2	1.2	0.5	0.1	9.4
Service	5.4	2.8	1.9	0.6	0.1	0.1	10.9
Farming	2.2	0.8	0.4	0.1	0.1	0.9	4.5
Other Primary	0.3	0.2	0.3	0.1	-	-	0.9
Processing	0.9	1.0	1.5	0.3	-	-	3.7
Machining and Product Fabricating	2.1	3.4	4.7	1.2	0.2	-	11.6
Construction	1.1	1.4	2.3	1.0	0.2	-	6.0
Transport Equipment Operating	0.7	0.8	1.4	0.4	0.1	-	3.4
Other	2.0	1.5	2.0	0.5	0.1	-	6.1
Not stated	2.8	1.9	1.6	0.5	0.2	1.1	8.1
Totals	50.6	26.0	27.1	9.6	4.1	2.4	99.7

Source: 1971 Census.

Note: Totals may not sum due to rounding.



TABLE IV-9

## OCCUPATIONS BY INCOME CLASSES

SUMMARY TABLE OF RANGES FOR ONTARIO COUNTY, PEEL COUNTY &  
METRO FOR 1971

			INCOME CLASSES					EMPLOYMENT BY OCCUPATION		
Occup. Group	Income \$,000's	Range	< 3	3-6	6-10	10-15	> 15	Range	Average	North Pickering Weights
	Occupation		%	%	%	%	%	%	%	%
11	Managerial & Admin.	L	.3	.4	1.2	1.1	.8	2.8	5.3	4.5
		H	.3	.6	1.6	1.9	2.5	6.8		
27	Teaching	L	.7	.6	1.1	.6	.1	3.1	3.6	1.9
		H	.8	.7	1.6	.7	.3	4.1		
31	Medicine & Health	L	.9	.8	.7	.1	.3	2.8	3.2	1.9
		H	1.6	1.4	1	.2	.3	3.6		
21 23 25 33	Technical, Social, Rel. Artistic & Related	L	.9	.6	1.2	1.3	.4	4.4	5.6	5.3
		H	1.4	1	1.9	1.9	.9	7.1		
41	Clerical	L	5.8	5.8	4.1	.6	.1	16.4	20.1	17.5
		H	7.3	10	5.3	1.1	.2	23.9		
51	Sales	L	3.2	1.6	2.4	1.1	.4	8.7	10.5	10.7
		H	4	2.1	2.9	2.2	1.1	12.3		
61	Service	L	3.8	1.5	1.4	.5	.1	7.3	8.9	6.6
		H	4.8	3.2	1.7	.6	.1	10.4		
71	Farming	L	.3	.2	.1	-	-	.6	2	.5
		H	2	.8	.4	.1	.1	3.4		
73 75 77	Other Pri- mary	L	-	-	-	-	-	-	-	.3
		H	.1	-	-	-	-	.1		
81 82	Processing	L	.5	.7	1.	.2	-	2.4	2.8	7.7
		H	.7	.8	1.3	.3	.1	3.2		
83 85	Machinery Product Fabricat.	L	1.9	3.3	4.4	1	.1	10.7	14.2	22.7
		H	2.4	6.5	6.5	2	.3	17.7		
87	Construc- tion	L	.6	.7	1.7	1.1	.2	4.3	5.3	6.2
		H	1	1.2	2.5	1.4	.2	6.3		
91	Transport Equipment Operating	L	.5	.6	1.4	.3	.1	2.9	3.6	2.9
		H	.6	.9	1.9	.7	.2	4.3		
93 95 99	Materials Handling, Other Crafts, N.E.C.	L	1.8	1.5	2	.5	.1	5.9	6.5	9.4
		H	2.2	1.8	2.2	.7	.2	7.1		
00	Occupation not stated	L	2.1	1.4	1.3	.5	.2	5.5	6.4	1.6
		H	2.3	2.2	1.8	.6	.3	7.2		
	Totals	L	23.3	19.7	24	8.9	2.9	79.8		100
		H	31.5	33.2	32.6	14.3	6.8	117.5		
	Average		27.4	26.5	28.3	11.6	4.9			

Source:  
1971 Census

N.E.C. - Not Elsewhere Classified.



TABLE IV-10

TOTAL OCCUPATION BY INCOME CLASSES FOR NORTH PICKERING POSTULATED "MARKET"  
 SCENARIO - ASSUMING 1971 INCOME CLASSES AND 1974 MODIFIED INCOME CLASSES

Occup. Group	Income 1971 \$ ,000 's	1974 Occupation	Range	< 3	3-6	6-10	10-15	> 15	Employment Average by Occupation (=Weights) %
				< 4 %	4-8 %	8-14 %	14-20 %	> 20 %	
11	Managerial & Admin.		L	.2	.3	2	.9	.7	4.5
			H	.3	.5	1.4	1.5	2.1	
27	Teaching		L	.4	.3	.6	.3	.1	1.9
			H	.4	.4	.8	.4	.2	
31	Medicine & Health		L	.5	.5	.4	.1	.2	1.9
			H	.1	.8	.6	.1	.2	
21 23 25 33	Technical, Social, Religion, Artistic & Related		L	.9	.6	1.1	1.2	.4	5.3
			H	1.3	.9	1.8	1.8	.9	
41	Clerical		L	5.1	5.1	3.6	.5	.1	17.5
			H	6.4	8.7	4.6	1	.2	
51	Sales		L	2.2	1.6	2.4	1.1	.4	10.7
			H	4	2.1	2.9	2.2	1.1	
61	Service		L	2.9	1.1	1.1	.4	.1	6.6
			H	3.6	2.4	1.3	.4	.1	
71	Farming		L	.1	.1	-	-	-	.5
			H	.5	.2	.1	-	-	
73 75 77	Other Pri- mary		L	-	-	-	-	-	.3
			H	-	-	-	-	-	
81 82	Processing		L	1.4	2	2.8	.6	-	7.7
			H	2	2.2	3.6	.8	.3	
83 85	Machinery & Product Fabricating		L	3	5.3	7	1.6	.2	22.7
			H	3.8	10.4	10.4	3.2	.5	
87	Construction		L	.7	.8	2	1.3	.2	6.2
			H	1.2	1.4	2.9	1.6	.2	
91	Transport Equipment Operating		L	.4	.5	1.1	.2	.1	2.9
			H	.5	.7	1.5	.6	.2	
93 95 99	Materials Handling, Other Crafts, N.E.C.		L	2.6	2.2	2.9	.7	.1	9.4
			H	3.2	2.6	3.2	1	.3	
00	Occupation not stated		L	.5	.4	.4	.1	-	1.6
			H	.6	.6	.5	.2	.1	
	Totals		L	22	20.8	26.4	9	2.6	100
			H	28.8	33.9	35.6	14.8	6.4	
	Average			25.4	27.3	31	11.9	4.5	

N.E.C. - Not Elsewhere Classified



Table IV-11 is analogous to Table IV-10. It gives North Pickering's estimated employment structure by occupational groups, dispersed by income class, using the 1974 modified income classes for the "ideal" scenario.

A comparison of Tables IV-10 and IV-11 clarifies the differences in employment opportunities likely to occur in the New Community under the two scenarios. It is interesting to note that while the relative sizes of all occupational groups are different for each scenario, these differences are quite marked at a more aggregated level but relatively small at a detailed level. At the category level used in the tables the largest gains were realized in the service occupations - 4.4%, followed by clerical (1.8%) teaching (1.7%), medicine and health (1.6%), sales (.7%) management and administrative (.6%), and technical, social and related group (.5%). The groups which lost most were machining and product fabricating (6.1%), processing (2.4%), materials handling and related (1.7%), and construction (.6%).

Table IV-12 below groups selected occupational categories to facilitate a comparison at a more aggregated level. The significant changes in this Table reflect the radical change in weights for major employment sectors between the two scenarios, from 57.1 + 6 + 15.5 + 21.4 for the "market" scenario to 38.1 + 4.8 + 16.7 + 40.4





TABLE IV-11

TOTAL OCCUPATION BY MODIFIED INCOME CLASSES FOR NORTH PICKERING

"IDEAL" SCENARIO

Occp. Group	Income \$,000's	1974	4	8	12	16	20	Employment Average by Occupation (=Weights)
	Occupation							
11	Managerial and Administration	L	.3	.4	1.2	1.1	.3	5.1
		H	.3	.6	1.6	1.8	2.4	
27	Teaching	L	.7	.6	1.1	.6	.1	5.6
		H	.8	.7	1.6	.7	.2	
31	Medicine & Health	L	1	.9	.8	.1	.2	3.5
		H	1.8	1.5	1.1	.2	.3	
21 23 25 33	Technical, Social, Religion, Artistic & Related	L	.9	.6	1.2	1.3	.4	5.8
		H	1.4	1	2	2	.9	
41	Clerical	L	5.6	5.6	4	.6	.1	19.3
		H	7	9.6	5.1	1.1	.2	
51	Sales	L	3.4	1.7	2.5	1.1	.4	11.4
		H	4.3	2.2	3.1	2.3	1.2	
61	Service	L	4.7	1.9	1.7	.6	.2	11.0
		H	5.9	4	2.1	.7	.2	
71	Farming	L	.1	.1	-	-	-	.6
		H	.7	.3	.1	-	-	
73 75 77	Other Primary	L	-	-	-	-	-	.3
		H	-	-	-	-	-	
81 82	Processing	L	1	1.1	2	.4	-	5.3
		H	1.5	1.6	2.6	.6	.2	
83 85	Machinery & Product Fabricating	L	2.2	2.9	5.1	1.2	.1	16.6
		H	2.8	7.6	7.6	2.4	.4	
87	Construction	L	.6	.7	1.8	1.2	.2	5.6
		H	1.1	1.5	2.7	1.5	.2	
91	Transport Equipment Operating	L	.5	.6	1.4	.3	.1	3.7
		H	.6	.9	1.9	.7	.2	
93 95 99	Material Handling Other Crafts, N.E.C.	L	2.1	1.8	2.4	.6	.1	7.7
		H	2.6	2.1	2.6	.8	.2	
00	Occupation not stated	L	.5	.3	.3	.1	-	1.4
		H	.5	.5	.4	.1	.1	
	Totals	L	23.6	20.5	25.5	9.2	2.8	100
		H	31.3	33.9	34.5	14.9	6.8	
	Average		27.4	27.2	30	12	4.9	

N.E.C. - Not Elsewhere Classified.



for the "ideal" scenario. In the "ideal" scenario, the service sector has been enlarged at the expense of the manufacturing sector, while construction and trade remain relatively unchanged.

TABLE IV-12

OCCUPATION COMPARISON FOR SELECTED CATEGORIES

<u>Occupation</u>		<u>"Market" Scenario</u>		<u>"Ideal" Scenario</u>	
		%		%	
1	Processing	7.7		5.3	
2	Machinery and Product Fabricating (Manufacturing = 1 + 2)	<u>22.7</u>	30.4	<u>16.6</u>	21.9
3	Construction	<u>6.2</u>	6.2	<u>5.6</u>	5.6
4	Transport Equipment Operation	2.9		3.7	
5	Materials Handling, Etc. (Wholesaling & Distributing = 4+5)	<u>9.4</u>	12.3	<u>7.7</u>	11.4
6	Management and Administration	<u>4.5</u>	4.5	<u>5.1</u>	5.1
7	Teaching	1.9		3.6	
8	Medicine and Health	1.9		3.5	
9	Technical, Social, Religion, Artistic and Related (Professional and Technical = 7+ 8 + 9)	<u>5.3</u>	9.1	<u>5.8</u>	12.9
10	Clerical	<u>17.5</u>	17.5	<u>19.3</u>	19.3
11	Sales	<u>10.7</u>	10.7	<u>11.4</u>	11.4
12	Service (Total Service = 6+7+8+9 +10+11+12)	<u>6.6</u>	6.6 48.5	<u>11.0</u>	11.0 59.7

Despite this change in the occupational structure between the two scenarios, the income distribution by



income classes is remarkably stable (see summary Table IV-13.) This may be explained in part by the basically similar income distribution patterns for both manufacturing and service sectors in the 3 middle income classes, which represent some 80% of all income recipients. Another factor contributing to this stability may be the relatively small changes between the two scenarios at the more detailed occupational level.

TABLE IV-13  
COMPARISON OF EMPLOYMENT INCOME OF INDIVIDUALS

<u>1974 \$'s</u>		
<u>\$,000's (1974)</u>	<u>"Market" Scenario</u>	<u>"Ideal" Scenario</u>
< 4	25.4	27.4
4 - 8	27.3	27.2
8 - 14	31	30
14 - 20	11.9	12
> 20	4.5	4.9

Given the uneven distribution of types of employment in the lakeshore area and the high incidence of commuting within this region, a question arises, analogous to that raised in Part 1 page 8 concerning income, as to how far these occupation profiles derived from the postulated structure of North Pickering's employment base, can be used as proxies for occupation profiles for the whole community.

Table IV-14 gives the occupational structure for selected places in the lakeshore area. In percentage terms, it also provides the average and the range for



Table IV - 14

OCCUPATIONAL STRUCTURE IN SELECTED URBAN PLACES  
IN THE CENTRAL ONTARIO LAKESHORE AREA

Major Occupational Group	Location Occupation	1 Chinguacousy	2 Brampton	3 Mississauga	4 Ajax	5 Whitby	6 Etobicoke	7 Scarborough	8 York	9 York East	10 York North	11 Toronto	12 Markham	13 Aurora	14 Newmarket	15 Richmond Hill	# Range Low - High	Average	# Range Low - High 1,2,4,7 Only	Average
11	Managerial, Administration	775	855	5,830	265	375	9,460	9,185	1,960	3,255	17,610	16,295	1,545	350	385	835	2.7 - 10.2	5.8	4.4 - 6.0	5.3
21	Natural Sciences	680	780	1,450	285	305	5,160	5,450	1,490	1,910	9,590	10,950	560	175	250	540	2.0 - 5.3	3.7	3.5 - 5.3	4.4
23	Social Sciences	70	115	630	15	50	1,225	1,000	550	665	3,260	6,165	160	70	90	95	.2 - 1.7	.86	.2 - .6	.47
25	Religion	15	20	80	15	30	195	210	70	80	440	610	25	15	10	40	.09 - .2	.22	.1 - .2	.28
27	Teaching & Related	435	655	2,560	165	350	4,490	4,865	1,485	1,845	8,800	11,880	795	330	335	460	2.0 - 5.9	3.8	3.0 - 3.4	3.22
31	Medical & Health	270	695	1,865	200	525	3,210	3,980	1,990	2,236	8,330	15,190	535	225	455	405	2.1 - 5.8	3.5	2.1 - 3.6	2.97
33	Artistic & Literary	160	140	825	45	95	1,565	1,775	575	855	3,260	7,565	290	50	40	200	.5 - 2.1	1.1	.7 - 1.1	.82
41	Clerical	2,510	3,525	14,325	1,085	1,590	31,820	38,235	15,735	16,520	53,835	76,760	2,920	970	1,440	2,840	15.7 - 29.3	20.8	18.4 - 25.1	20.7
51	Sales	1,225	1,890	8,516	620	1,020	15,810	17,305	5,510	5,290	31,420	27,505	2,310	580	840	1,445	7.6 - 15.2	10.8	9.8 - 11.3	10.4
61	Service	840	1,510	4,945	425	77	10,660	13,020	7,310	5,135	18,860	45,300	1,120	535	860	1,250	6.5 - 12.6	8.8	6.5 - 8.5	7.8
71	Farming	740	355	795	35	325	680	740	410	190	1,230	2,270	570	145	160	400	.3 - 5.7	1.76	.4 - 5.7	2.22
73	Fishing, Hunting	-	-	-	-	-	-	-	-	-	-	20	-	-	-	-	-	-	-	-
75	Forestry	10	10	40	5	10	45	40	5	20	125	10	10	-	20	20	.02 - .2	.06	.02 - .07	.06
77	Mining & Quarrying	-	15	40	-	10	65	45	35	25	95	145	20	5	5	10	.02 - .1	.04	.02 - .07	.08
81/82	Processing	305	855	1,715	220	365	3,660	3,400	2,670	1,210	4,780	9,435	150	205	205	235	.9 - 4.4	2.7	2.2 - 4.4	3.2
83	Machinery	630	1,060	2,475	330	465	5,535	5,575	3,595	1,520	6,980	10,735	305	165	295	535	2.0 - 6.0	3.8	3.6 - 6.0	6.0
85	Product Fabricating	1,390	2,345	5,960	685	1,385	11,810	12,750	8,845	4,220	18,520	28,880	935	455	720	1,190	6.1 - 13.7	8.4	8.3 - 12.4	10.8
87	Construction Trades	595	800	2,855	305	575	6,130	8,380	6,540	2,555	14,815	20,135	820	250	455	1,150	4.1 - 9.0	5.5	4.1 - 5.5	4.8
91	Transportation Equipment	530	740	2,830	150	380	4,905	5,415	2,465	1,570	6,975	10,745	420	210	300	635	2.7 - 4.4	3.4	2.7 - 4.1	3.5
93	Material Handling	375	715	1,985	140	245	4,565	4,070	2,500	1,140	5,240	9,110	165	155	200	310	1.0 - 3.7	2.5	2.5 - 3.7	2.8
95	Other Crafts	265	315	1,145	135	110	2,270	4,055	1,150	1,250	3,680	5,185	230	75	115	305	1.0 - 2.6	1.7	1.6 - 2.6	2.1
99	Not Elsewhere Classified	240	395	1,180	135	210	2,670	3,025	1,595	905	4,270	8,380	225	125	125	295	1.4 - 2.4	1.9	1.8 - 1.5	2.0
	Occupation Not Stated	805	1,360	4,655	240	580	7,680	9,350	5,895	3,910	15,030	35,730	1,000	490	525	1,060	4.3 - 9.9	6.8	4.3 - 7.1	7.7
	All Occupations	12,805	19,150	68,715	5,560	10,090	113,605	151,865	72,380	56,275	237,085	359,140	15,125	5,565	7,825	14,260				

Source: 1971 Census





each of the occupational categories listed, for the sum of the 15 urban places examined in the Table, and the same information for Chinguacousy, Brampton, Ajax and Scarborough which were selected as partial analogues for North Pickering. Since the Table was developed from place-of-residence data, the occupational profiles are for the communities and not for the employment bases of these places.

All the occupational base data used in Part IV of this paper is 1971 Census place-of-residence data. The weights for North Pickering's employment structure were developed from occupational data for the Province as a whole, but at the Provincial level, place-of-residence data is approximately equal to place-of-work data.

For ready reference, Table IV-15 below compares in average terms, the occupational structures for North Pickering's postulated "market" and "ideal" scenarios with summaries of those for the 15 places examined in Table IV-14 and the 4 places chosen as partial analogues for the New Community. This table makes it apparent that the figures for North Pickering are atypical in both scenarios for Farming, Other Primary, and Processing, for Service in the "ideal" scenario and for Teaching and Product Fabricating in the "market" scenario. By definition, the employment base which is being estimated for North Pickering is its urban employment base. Therefore the figures for Farming and Other Primary



TABLE IV - 15

COMPARISON OF OCCUPATIONAL STRUCTURES

	<u>N.P. "market" Average</u>	<u>N.P. "ideal" Average</u>	<u>Avg. Places 1-15 from Table IV-15</u>	<u>Avg. Places 1,2,4,7 Table IV-15</u>
11 Mgm. & Admin.	4.5	5.1	5.8	5.3
27 Teaching	1.9	3.6	3.6	3.2
31 Medicine & Health	1.9	3.5	3.5	3.0
21 Technical )				
23 Social Sc. )				
25 Religion )	5.3	5.8	5.8	5.8
33 Artistic & ) Literary )				
41 Clerical	17.5	19.3	20.8	20.7
51 Sales	10.7	11.4	10.6	10.4
61 Service	6.6	11.0	8.8	7.6
71 Farming	.5	.6	1.7	2.1
73 )				
75 Other )	.3	.3	.1	.1
77 Primary )				
81 )				
82 Processing )	7.7	5.3	2.7	3.2
83 Machinery & )	22.7	16.6	13.2	15.9
85 Prod. Fab. )				
87 Construction	6.2	5.6	5.5	4.9
91 Transport Equipment Operating	2.9	3.7	3.4	3.5
93 Mat. Handling )				
95 Other crafts )	9.4	7.7	6.1	7.0
99 N.E.C. )				
00 Occup. not stated	1.6	1.4	6.8	5.9



explicitly omit the agricultural community which is being planned for the west side of the East Duffin and the sand and gravel activities which already exist on the North Pickering site. The North Pickering figures for Processing and for Machinery and Product Fabricating are influenced by the heavy reliance on manufacturing employment which is an essential part of the "market" scenario. Similarly, the North Pickering figure for the occupational category No. 61 Service, which appears in the "ideal" scenario has been influenced by the atypically high service employment component on which the "ideal" scenario depends. No similar explanation exists for the low figure of 1.9 which appears in the "market" scenario for the occupational category No. 31 Teaching. It is a purely mechanical result of the method of calculating the occupational profiles and is probably an understatement for the New Community. With these exceptions, the average occupation figures for North Pickering appear to fit reasonably well into the general picture for the lakeshore area.

Reference to the second last column of Table IV-14 indicates that the ranges for occupational categories for the sum of the places Chinguacousy, Brampton, Ajax and Scarborough are not great, except for Clerical. For the Table as a whole, Clerical has by far the greatest range. For all occupations, including Clerical, the ranges for the four partial analogue places are narrower than for the total of 15 places examined in Table IV-14



and again, with the special exceptions discussed, the average figures for North Pickering fit comfortably into the partial analogue ranges. In general, therefore, it would appear that the occupational profiles estimated for North Pickering's labour force can be accepted for working purposes as occupational profiles for the New Community.

The importance of providing a working proxy of the occupational structure of the New Community is not yet understood because little is known about the influence of occupation on the expenditure choices of the individuals and families. Reference has been made to the fact that the earned income of all occupational groups is remarkably similar for approximately 80% of the earned income spectrum. Yet instances of rather different expenditure patterns by individuals or families with approximately the same disposable income can be observed. In such cases, not only is the distribution of expenditure between say, accommodation, car and recreational pursuits different, but the types of accommodation, car and recreational pursuits chosen are also different. If these choices are being made within approximately the same income constraints, then the differences may be accounted for by occupation, possibly due to the different training and educational requirements for different occupations. If such instances are rare, the matter is of little account. But if expenditure choices attach fairly consistently to





occupation, then for North Pickering or for any other community interested in diversifying its employment base and improving its live/work ratio, it may be very important to know not only what housing types and which recreational and other services are preferred by which occupational groups, but what overall approach to community planning is preferred by whom.

The type of information offered by Table IV-14 may offer a starting point for this investigation. Tables IV-16 and IV-17 below, which have been derived from Table IV-14 set out partial descriptions of the resident labour forces of Markham and York. In each Table attention has been drawn to the place in range of the urban place for certain occupational groups which probably require rather different types of training and education.

Considerable caution should be used in interpreting these Tables. Much work is still required to establish the relation of occupation and income over time and to place this information in the perspective of the price and availability of various types of housing for the same time period.

Perhaps the degree of similarity between the average figures for the 15 places examined in Table IV-14 reflects the off-setting of the uneven distribution of employment by the high commuting rate in the region. It may also mean that the occupational profile for North Pickering's "ideal" scenario may be a better proxy



TABLE IV - 16

PARTIAL OCCUPATIONAL DESCRIPTION OF  
MARKHAM'S RESIDENT LABOUR FORCE

<u>OCCUPATION</u>	<u>PLACE IN RANGE</u>	<u>PER CENT</u>
Sales	HIGH	15.2
Managerial, Administration	HIGH	10.2
Teaching & Related	higher end	5.2
Artistic & Literary	higher end	1.9
Clerical	middle	19.3
Service	middle	7.4
Farming	middle	3.7
Medical & Health	middle	3.5
Construction Trades	lower end	5.4
Product Fabricating	LOW	6.1
Transportation Equipment Operating	LOW	2.7
Machinery	LOW	2.0
Material Handling	LOW	1.0
Processing	LOW	.9



TABLE IV - 17

PARTIAL OCCUPATIONAL DESCRIPTION  
OF YORK'S RESIDENT LABOUR FORCE

<u>OCCUPATION</u>	<u>PLACE IN RANGE</u>	<u>PER CENT</u>
Construction	HIGH	9.0
Product Fabricating	higher end	12.2
Service	higher end	10.0
Machinery	higher end	4.9
Processing	higher end	3.6
Transportation Equipment Operating	higher end	3.4
Materials Handling	higher end	3.4
Clerical	middle	21.7
Medical & Health	lower end	2.7
Farming	lower end	.5
Sales	LOW	7.6
Natural Science	LOW	2.0
Teaching	LOW	2.0



for the whole community than that developed for its "market" scenario. And perhaps the difference in ranges concealed by these averages indicate that the commuting patterns reflect rather definite choices concerning place of residence, as well as which occupational groups are more or less willing or able to commute to satisfy these preferences. One or two examples may serve to illustrate the latter point, Of the 15 places examined, Whitby has the 'low' figure for clerical at 15.7 and East York the 'high' at 29.3. From the inner range of the 4 partial analogue places, Brampton has the 'low' clerical figure of 18.4 and Scarborough the 'high' of 25.1. There may be some indication here that clerical personnel prefer to minimize commuting time, to locate adjacent to public transportation and prefer apartment accommodation in fairly dense residential areas. From the outer range of 15 places, the high for Managerial, administration is at Markham with 10.2 and the 'low' at York with 2.7. For the 'inner range' the figures are Scarborough 6.0 and Brampton 4.4 respectively. Perhaps this occupational group has a greater willingness to commute to attain a preference for lower density residential areas.

The implementation of North Pickering's designed match of housing with employment opportunities available to its resident labour force, as well as providing the social, recreational and other services preferred by its resident community may provide a useful contribution to the solution of this interesting problem.





SELECTED MATERIAL AND SOURCES OF INFORMATION  
USED IN PREPARATION OF THIS PAPER



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Statistics Canada Publications of 1971 Census Data:

- 1 - 1. "Population", Special Bulletin, February, 1973,  
Catalogue 92-772.
- 1 - 2. "Families", June 1973, Catalogue 93-714.
- 1 - 3. "Occupations", Catalogue 94-727.
- 1 - 4. "Toronto", Census Tract Bulletin, May 1973,  
Catalogue 95-721.

Statistics Canada Microfilm Tables of 1971 Census Data:

- 2 - 1. PTAB1A and PTAB1B "Household by Type Showing Household  
Employment Income Group and Average Household Employment  
Income per Class".
- 2 - 2. PTAB25, "Individuals 15 years and Over Who Worked in  
1970 Employment Income Groups, Occupation and Sex".
- 2 - 3. PTAB29, "Individual 15 years and Over Who Worked  
in 1970 by 1970 Employment Income Groups, Industry and  
Sex".
- 2 - 4. "Income of Heads of Census Families for 1970".
- 2 - 5. "Employment Income for 1970 of Heads of Census Families  
who worked in 1970".
- 2 - 6. "Income of Census Families for 1970".

Statistics Canada Computer Print-out:

"Labour Force, 15 years and over; Occupation (608)

- 3 - 1. by Industry (68) for both Sexes, 1971 Census.



Other Statistics Canada Publications:

- 4 - 1. "Employment and Average Weekly Wages and Salaries"  
for July 1970 and August 1974, Catalogue 72-002 Monthly.
- 4 - 2. "Income Distribution by Size in Canada: Preliminary  
Estimates 1973", October 1974.

Other Sources of Information:

- 5 - 1. "Taxation Statistics; 1974 Edition", Information  
Canada, 1974.









Ministry of  
Housing

Hon. Donald R. Irvine, *Minister*  
R. M. Warren, *Deputy Minister*